

SD Times

The Industry Newspaper for Software Development Managers

JULY 1, 2002
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LINEO IS NOW EMBEDIX

New company releases SDK, dumps RTXC

BY EDWARD J. CORREIA

Say goodbye to Lineo Inc. With a minimum of fanfare, the financially troubled Linux developer in April was forced into auction by investors. What has emerged is Embedix Inc., a new company owned by Canopy Group and Egan Managed Capital, Lineo's main investors.

The new company has released Embedix SDK 2.4, the latest version of its development environment for embedded applications.

According to Matt Harris, who remains CEO of Embedix (www.embedix.com), Lineo's primary investors began to grow impatient with the company's inability to achieve profitability. "Our principal funding sources

decided that if they were to continue funding the company, they wanted to have a controlling interest," he said, adding that what followed was vigorous debate over just how to execute that transfer of control. Since much of the company's financing had been tendered as secured demand notes, Harris explained that investors could turn those notes back to cash on demand, essentially erasing the minor investors and seizing 100 percent control of the company.

"At that point I was so frustrated, I thought about giving up. Because at first their plan was to take the entire company," Harris continued, adding that in the end, the collective clout of

► continued on page 24

Group Inc. Novell, on the other hand, "had to do something to survive. They were on a slow march to obscurity," as one analyst put it, is trying to crack into the application development market with its recent acquisition of SilverStream Software Inc.

Novell Inc., a company that until recently "had been on a slow march to obscurity," as one analyst put it, is trying to crack into the application development market with its recent acquisition of SilverStream Software Inc.

On June 10, Novell entered into a definitive agreement to acquire SilverStream as part of a cash deal worth approximately \$212 million. Pending shareholder approval, the deal gives SilverStream "the ability to keep doing exactly what they were doing before, plus get deeper pockets and better channels," said Craig Roth, vice president of Web and collaboration strategies at research firm Meta

Novell is considering other minor acquisitions, says Stone.

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WEBGAIN APPEARS TO DISAPPEAR

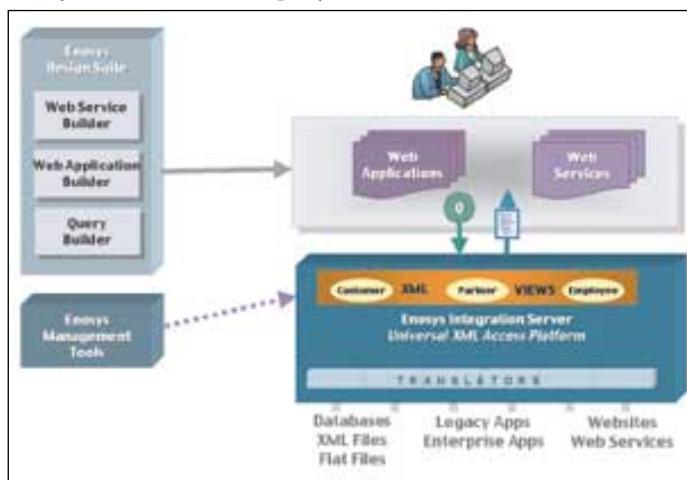
BY DAVID RUBINSTEIN

In what might rank as the highest-profile business failure in the software development space, Java tools vendor WebGain Inc. has ceased operations and laid off the majority of its staff, according to industry sources.

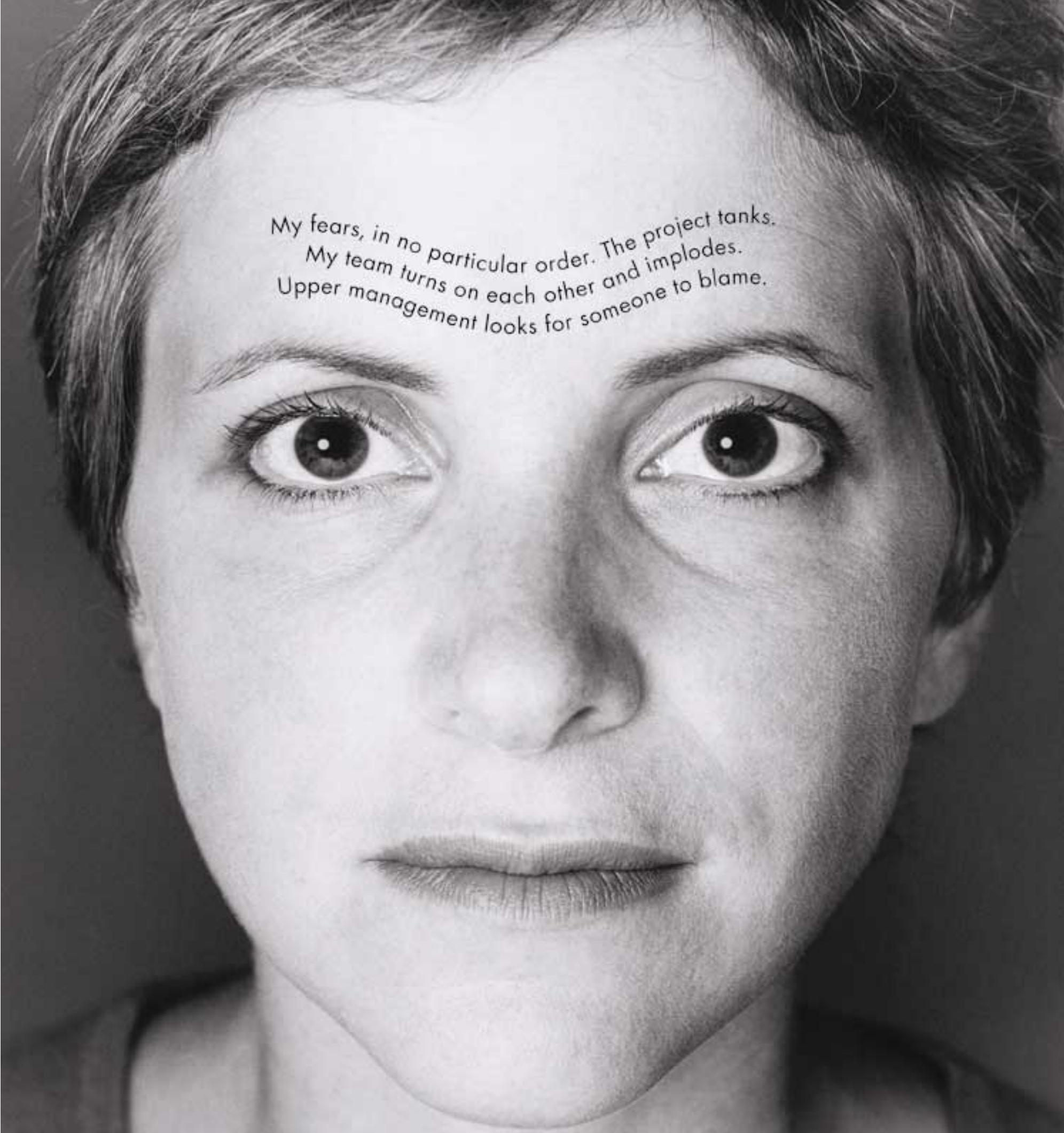
WebGain splashed onto the scene in early 2000, spun out from BEA Systems Inc. and staked to \$100 million by BEA and Warburg, Pincus Venture Partners. WebGain pieced together its award-winning Studio development environment through acquisitions and licensing arrangements, and as recently as March was looking to move into Web services with its product line. Its closure was both abrupt and stunning.

WebGain CEO Joe Menard

► continued on page 18



One XML query can access multiple databases and enterprise and legacy apps.



*My fears, in no particular order. The project tanks.
My team turns on each other and implodes.
Upper management looks for someone to blame.*

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BEA Delivers WebLogic Workshop Framework

BY ALAN ZEICHICK

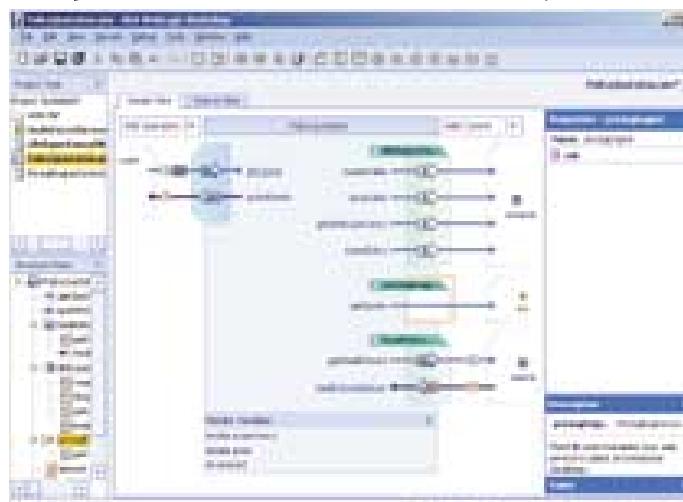
BEA Systems Inc. was expected last week to deliver WebLogic Workshop, the Web services-oriented application development tool and runtime environment that it previewed earlier this year under the code name Cajun. Although applications written using Workshop will currently run only on BEA's own WebLogic application server, the software isn't proprietary, according to the company, because key elements have been submitted to Sun Microsystems Inc.'s Java Community Process, and therefore other J2EE app-server vendors will be able to construct compatible components.

Carl Sjogreen, BEA's project manager for WebLogic Workshop, described the target user of the tool as a traditional procedural programmer who's familiar with IDEs such as Visual Basic or PowerBuilder, and who may not have a deep understanding of J2EE or server-side development. "While we think the tool is applicable to everyone who wants to build Web services, we've kept that corporate application developer in mind as our key user," he said.

Web services are the key to Workshop, Sjogreen said. "For the first release of this product, we had to pick an application

domain to focus on, and Web services seemed like a good place to go. Where we're looking to take Workshop is as a general-purpose framework for building applications, and Web services are just one piece of that," he explained. "We would like to take Workshop, over the next 12 to 18 months, and expand it from just building Web services to being able to build applications of any kind—server-side user interfaces, building J2EE components natively, that sort of thing."

Even with that expanded focus, Workshop will still be for what Sjogreen described as corporate application developers. "We don't see ourselves competing against the Borlands and TogetherSofts of the world," he claimed; that's why BEA calls Workshop a development framework, and not a development tool. "Our business model is not in being a tools vendor," he said. "We've created a server-side application framework for Web services, and we've already announced partnerships with companies like Borland and TogetherSoft to support some of the underlying Web services concepts [in Workshop]. If a developer used to using TogetherSoft wants to build BEA enterprise-class Web



BEA's JWS allows developers to deal with enterprise-class requirements.

services in their tool, instead of using the Workshop environment, and take advantage of the underlying Workshop framework, that's fine with us."

The challenge that led BEA to create Workshop, said Sjogreen, is the complexity of J2EE development. "There's no five-line 'Hello World' for J2EE applications. It's learn about a session bean and know what JNDI is all about and put all these files together, and write some deployment descriptors and JAR it all off, and 500 lines of code later you'll have 'Hello World,'" he laughed. "Most of the other products we've seen are about putting a pretty face

on those same components and APIs; our approach is that you want to take advantage of J2EE under the hood, but that's all plumbing code. But developers want to write application logic." To that end, he said, Workshop hides all of the plumbing and underlying mechanics.

That largely takes place through a separate file format, developed by BEA, called JWS, or Java Web Services. "What we're trying to do, on top of the core standards of SOAP and WSDL, is layer on the capability to deal with enterprise-class requirements. This is where we see ourselves adding value in the Web services space," said

► continued on page 14

Sjogreen, adding that JWS offers a loose coupling between Web services and the applications; other tools, he claimed, have a too-tight binding between the Java classes and objects, to the XML data that comprises the Web services.

Sjogreen said that JWS is a standard Java class. "All we've done is add some JavaDoc comments to allow developers to declaratively mark up their code and say, 'I want this method to be asynchronous. I want this method to be exposed via JMS instead of HTTP. Do all this work for me,'" he explained. BEA has submitted the method to the JCP as Java Service Request 181, "Web Services Metadata for the Java Platform," and is serving as the specification lead. JSR-181's expert group was formed in mid-April. "Just like there's an EJB spec and everyone is competing on building the best EJB container, we hope to encourage the same market around JWS files," he said.

Sjogreen said that Workshop contains both a stand-alone Java Swing-based graphical tool and a runtime environment. "The tool is a visual development framework that presents you with a way to draw up a wire frame of what your Web service is going

OptimalJ 2.1 Introduces Patterns, Diagrams

Compuware's Java development environment based on Model Driven Architecture

BY DAVID RUBINSTEIN

In its first major update since the initial release in November 2001, the OptimalJ 2.1 development environment from Compuware Corp. now implements Object Management Group's Model Driven Architecture (MDA), and includes new patterns, developer diagrams and business-process services for J2EE.

"We saw a rich architecture with the MDA that allows for the use of models on multiple levels," said OptimalJ product manager Ton Blankers. "You can model on the business level, the application level and the code level. So people within an organization can decide on the best implementation based on their level of expertise. A business analyst doesn't need to know technical details to have input into the business model."

Using OptimalJ, said Blankers, much of the code underlying the J2EE applications, as well as specific business logic, can be stored in patterns, so developers can more easily create apps that leverage a company's workflow and take advantage of the platform, Blankers said. With version 2.1, Compuware (www.compuware.com) is introducing two new pattern types: domain patterns, which allow developers to define and reuse existing business models and describe business components; and implementation patterns, which translate the application model into code.

Blankers claimed that Compuware's approach to code generation is different from those taken by other modeling companies, because OptimalJ generates a complete application

while other template-based UML tools require developers to "fill in the gaps with their own knowledge of the underlying platform and then glue" code pieces together. By contrast, OptimalJ 2.1 allows architects to define J2EE patterns, shifting the focus for developers to building applications from worrying about how to build them for the complex J2EE platform, he explained.

With this release, priced at \$4,995 per developer seat, Compuware also is introducing diagrams at the application model level, based on UML. New presentation model extensions help developers define the format and layout of attributes in the application model, Blankers added. The new diagrams, which Blankers said help developers navigate through the generated compo-

nents, are the DBMS Relational Diagram, the EJB Component Diagram and the Web Component Diagram. "J2EE makes it complex for developers to navigate through an entire application," Blankers said. "The diagrams help to see the impact of a function throughout the components. If you want to change how a key is handled, you want to know which components handle validation" all throughout the application.

Blankers said OptimalJ doesn't offer a complete set of UML diagrams, because the company's experience showed the developers used only the Class diagram to implement code. "The other diagrams are more for discussion and visualization of the process," he claimed.

Also new to version 2.1 are

domain services, a combination of business components implemented in session beans to handle customer-order relationships, he said.

When OptimalJ was announced at the JavaOne conference in June 2001, the company promised that the NetBeans-based tool would be integrated with Borland's JBuilder and IBM's Visual Age for Java IDEs. That's still coming, though the IBM integration could be shifted to the Eclipse Workbench development framework, said Blankers, who expects the work on JBuilder to be completed in the fall. "We're looking into Eclipse to see how much market they're getting," Blankers said. Compuware supports deployment on BEA's WebLogic, IBM's WebSphere and Sun's Sun ONE application servers. ■

News Briefs

COMPANIES

RSA Security Inc. will be working with **Sun Microsystems Inc.** to improve interoperability between RSA's ClearTrust Web access system and Koen digital certificate management software and Sun's directory and portal servers . . . **IBM Corp.** will be withdrawing its Application Development Manager SCM software. The company is working with **MKS Inc.** to offer a migration path to MKS's Source Integrity Enterprise Edition software . . . **Wind River Systems Inc.** has dropped a patent-infringement lawsuit against **Green Hills Software Inc.** The suit, filed in October 2001, had alleged that Green Hills violated a patent on real-time software analysis . . . **Microsoft Corp.** has agreed to comply with the U.S. Securities Exchange Act, requiring it to report financial results according to Generally Accepted Accounting Principles. This resolved an investigation by the U.S. Securities and Exchange Commission, launched in 1999, that had questioned Microsoft's accounting practices for 1995 to 1998 . . . **Hewlett-Packard Co.** has released a 64-bit version of Unix for Intel's Itanium processors. HP-UX 11i version 1.6 is both source- and binary-compatible between the Itanium and HP's own PA-RISC processors. **BEA Systems Inc.** has pledged to release a version of its WebLogic app server and Tuxedo middleware for HP-UX on the Itanium processor.

PRODUCTS

Sun Microsystems Inc. has released **Solaris 9** for SPARC processors. The new operating system is bundled with the **Sun ONE Application Server** and the **Sun ONE Directory Server** . . . Sun also updated its **Sun ONE Portal Server**; the version 6.0 release includes an identity management system. It will be available for Sun's app server in August, and for BEA's WebLogic and IBM's WebSphere app servers by the end of this year; Linux and Windows versions are promised for mid-2003 . . . Plumtree Software Inc. has updated its **Corporate Portal** server to version 4.5WS. The new release supports Microsoft's .NET and Web services. The company also has released a beta of its **.NET Gadget Development Kit**, which lets developers write portlets using any .NET-compliant language; the GDK is expected to be generally available by September . . . Thought Inc. claims that its **CocoBase Enterprise OR version 4, Service Release 2E** runs up to 30 times faster than previous versions of the object-relational mapping software. The service release also simplifies object-model retrieval, and offers a new shared-source transparent persistence façade interface with APIs . . . IBM Corp. has unveiled a new XML-based user interface integration protocol, called **Web Services Experience Language (WSXL)**, along with an SDK on its alphaWorks site. The protocol is designed to allow developers to embed one Web site into another. IBM will be submitting WSXL to OASIS for standards approval . . . AppForge Inc. has updated and rebranded **AppForge**, its Visual Basic-based embedded development tool. Now called **MobileVB**, the latest version of the software for Palm OS, Pocket PC and Symbian OS works with the Short Message Service standard. It also now supports the Nokia 9200 Communicator cell phone. The IDE is priced at \$899 . . . Altova Inc. has updated its **XML Spy** suite to edit DocBook-formatted documents, and to include a multilanguage spell checker. Version 4.4 of the suite, which includes an XML editor, XSLT designer and a browser plug-in, costs \$399 per developer . . . Lumigent Technologies Inc. has a new version of its **Log Explorer** tool for debugging Microsoft's SQL Server applications and for recovering lost data after a crash. The new 3.0 release includes new blob types, allows preindexing of large transaction logs, and has tools for automating the recovery of dropped or truncated tables . . . Collaxa Inc. is now shipping its previously announced **Web Services Orchestration Server 1.0**; the final shipping release runs on Oracle's 9i app server in addition to BEA's WebLogic. Prices start at \$10,000 per server . . . Raining Data Corp., the successor to Pick Systems, has a new XML plug-in for its Omnis Studio Web application development environments. The **oXML** plug-in will work with mvDesigner, an IDE for developers using the company's multivalue databases . . . Logic Programming Associates Ltd. has released a Web-enabled version of its Flex expert-system development

.NET Advancing Quickly on J2EE

But research shows Java maintains strong position

BY ALAN ZEICHICK

Microsoft Corp.'s .NET platform, which officially began shipping in February, has achieved considerable market penetration, and is on pace to increase its adoption considerably over the next 12 months, according to the results of a BZ Research summer developer survey. Sun Microsystems Inc.'s Java platform, however, is also making gains, and neither platform is projected to take a dominant position in the near term. In fact, planned development for .NET and Java within the next year is virtually a dead heat among

development managers who responded.

The study shows that while the rise of XML and Web services is encouraging some organizations to standardize on .NET or Java, a large number of development managers indicated that these technologies are actually making it more likely that they'll maintain a mix of different platforms for future projects.

The survey, completed by 633 development managers, was conducted by BZ Research in early June. BZ Research is a sister organization of SD Times.

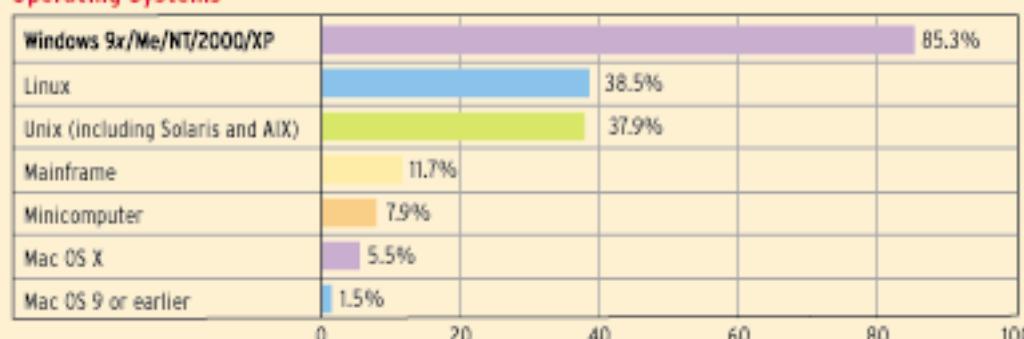
In the survey, 78 percent

of respondents indicated that they are currently developing for a Microsoft platform, with 28.6 percent stating that they are actively developing specifically for .NET or ASP.NET, Microsoft's application server for the .NET platform. When asked about their plans for new applications being developed over the next 12 months, 72.5 percent said they would be developing for a Microsoft platform, only a small increase, while the .NET/ASP.NET planned usage for the next year nearly doubled, to 52.6 percent.

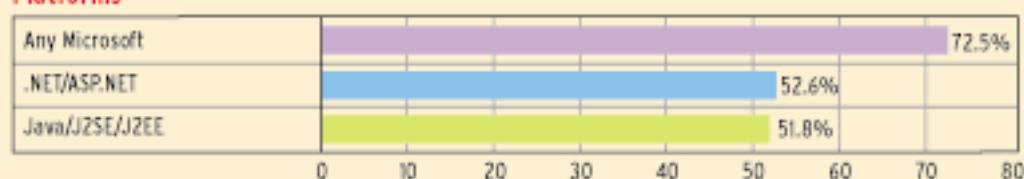
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Which platforms do you expect your company to migrate to or build new applications on/for over the next 12 months?

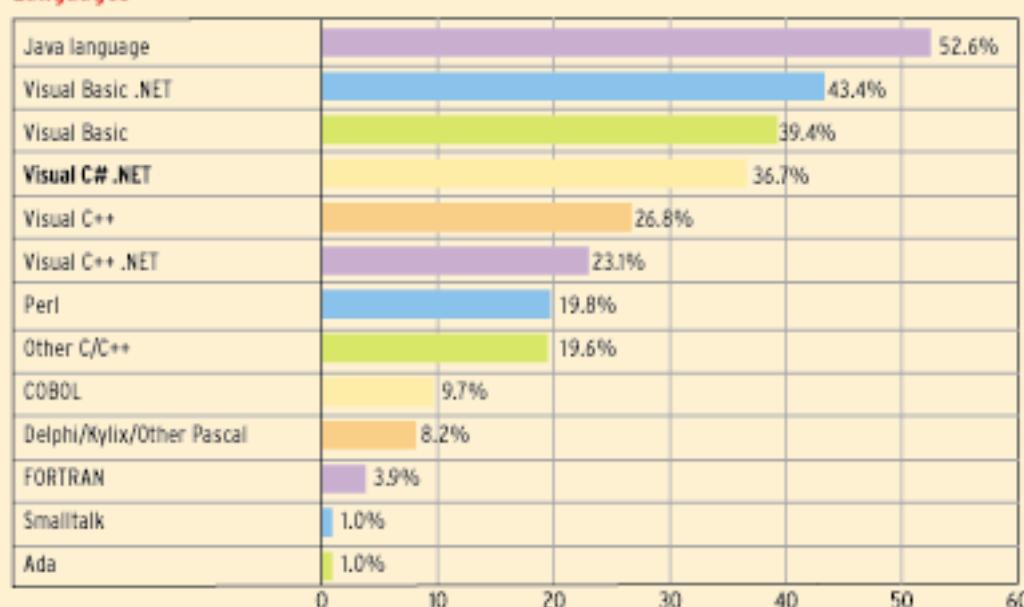
Operating Systems



Platforms



Languages



Source: BZ Research, June 2002

The Freedom To Soar.



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Excelon Enhances XML Database, Tools

Stylus Studio gets new defect-tracking functionality; XIS offers full-text searching

BY DAVID RUBINSTEIN

Excelon Corp. was expected last month to release the fourth version of its Stylus Studio XML development envi-

ronment with enhanced defect tracking, and schema diagram capabilities. Excelon also has licensed Verity Corp.'s text indexing engine to provide

full-text searching within its XIS XML database server.

"We believe it's the most comprehensive XSLT development environment on the mar-

ket," claimed Jonathan Bachman, vice president of product marketing at Excelon (www.exeloncorp.com). Stylus Studio 4, which sells for \$399, tar-

gets developers using style sheets, schema and XML documents. Developers can create a preview window from an output file, and click on a field or test and generate a trace to get to the line of XML that produced it, Bachman explained. "That's very important because XSL is such a difficult language."

In past versions, Stylus Studio provided only a tree view of XML schema; with this release, a diagram can be generated that can be synchronized with other views, Bachman said. The diagramming capability, which supports Document Type Definitions and XML schema, strengthens what Bachman called "a weakness in our product for some time."

The new version also offers the ability to switch out of Excelon's XSLT processor into the Apache Software Foundation's Xalan-J XSLT processor—the most broadly used processor in the industry, according to Bachman—so developers can test their actual executables against the actual processor it will be using in production. "It gives you the ability to do source-level debugging with back mapping," he said.

The last major upgrade concerns offline stack tracing, which allows developers to let the processor run to completion and go to the output to see why something executed the way it did after processing occurred. Prior to that, unless developers set breakpoints in the code, they couldn't go back and inspect the stack, Bachman said.

As for XIS, Bachman said the add-on of a full-text search engine is critically important in the knowledge management space, where developers need to search a database with a wide range of data types. XIS had allowed for XPath or XQuery searches, because XML databases focus on data structures and not the full text, but content publishers and business transaction gateways often need to search across the various elements within data fields. Bachman said the licensing is tied in with the XIS license, but expects the final price to be under \$20,000 per processor. ■

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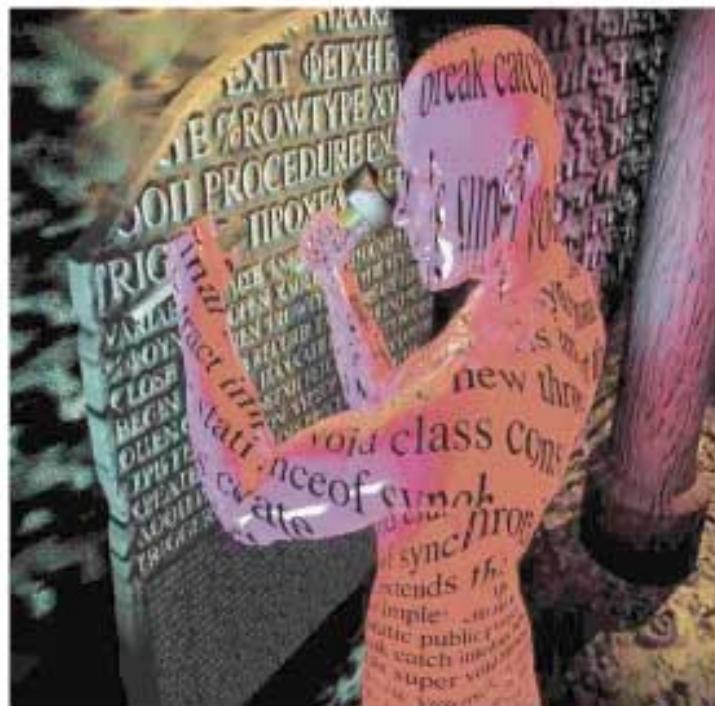
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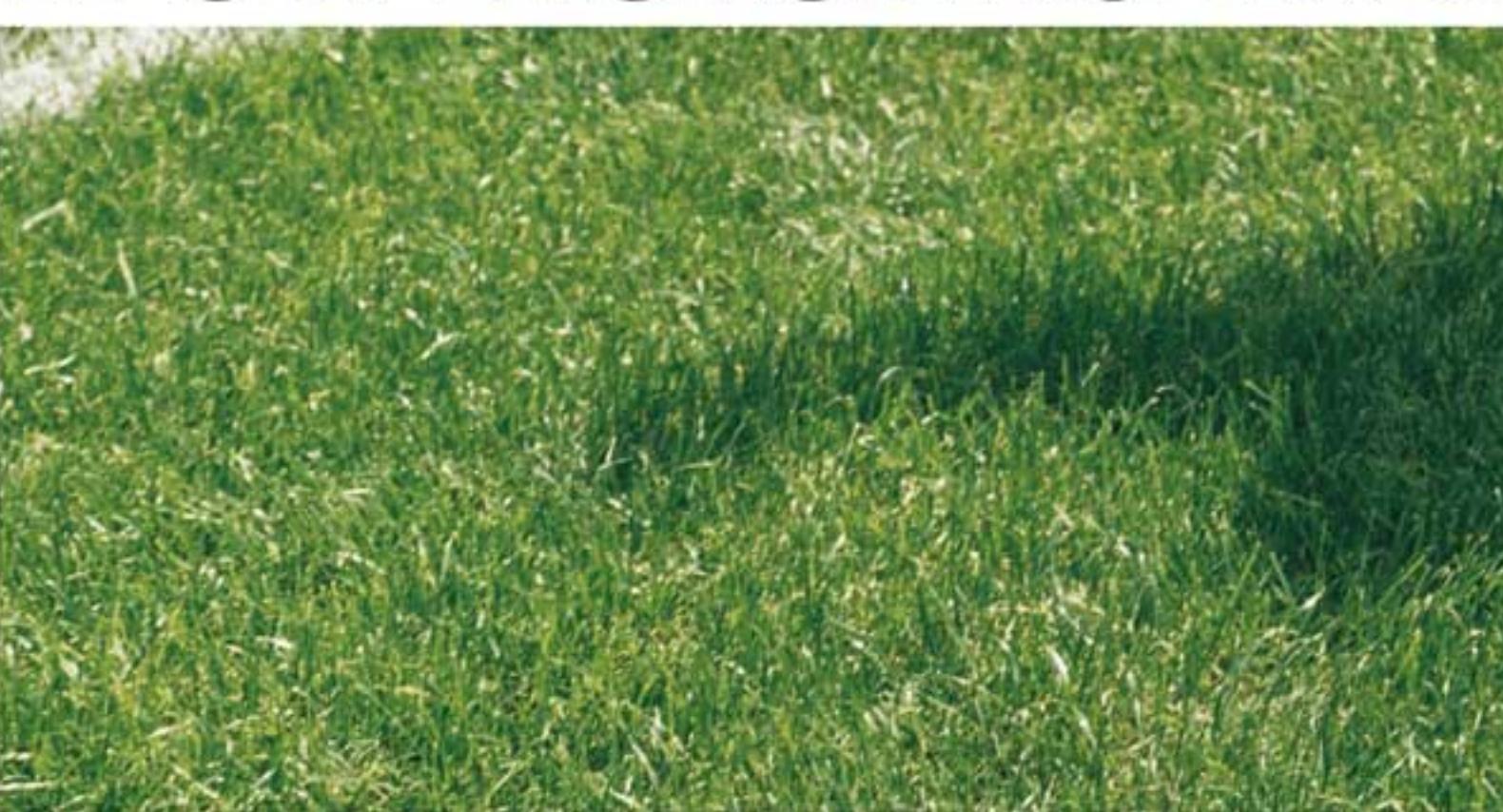
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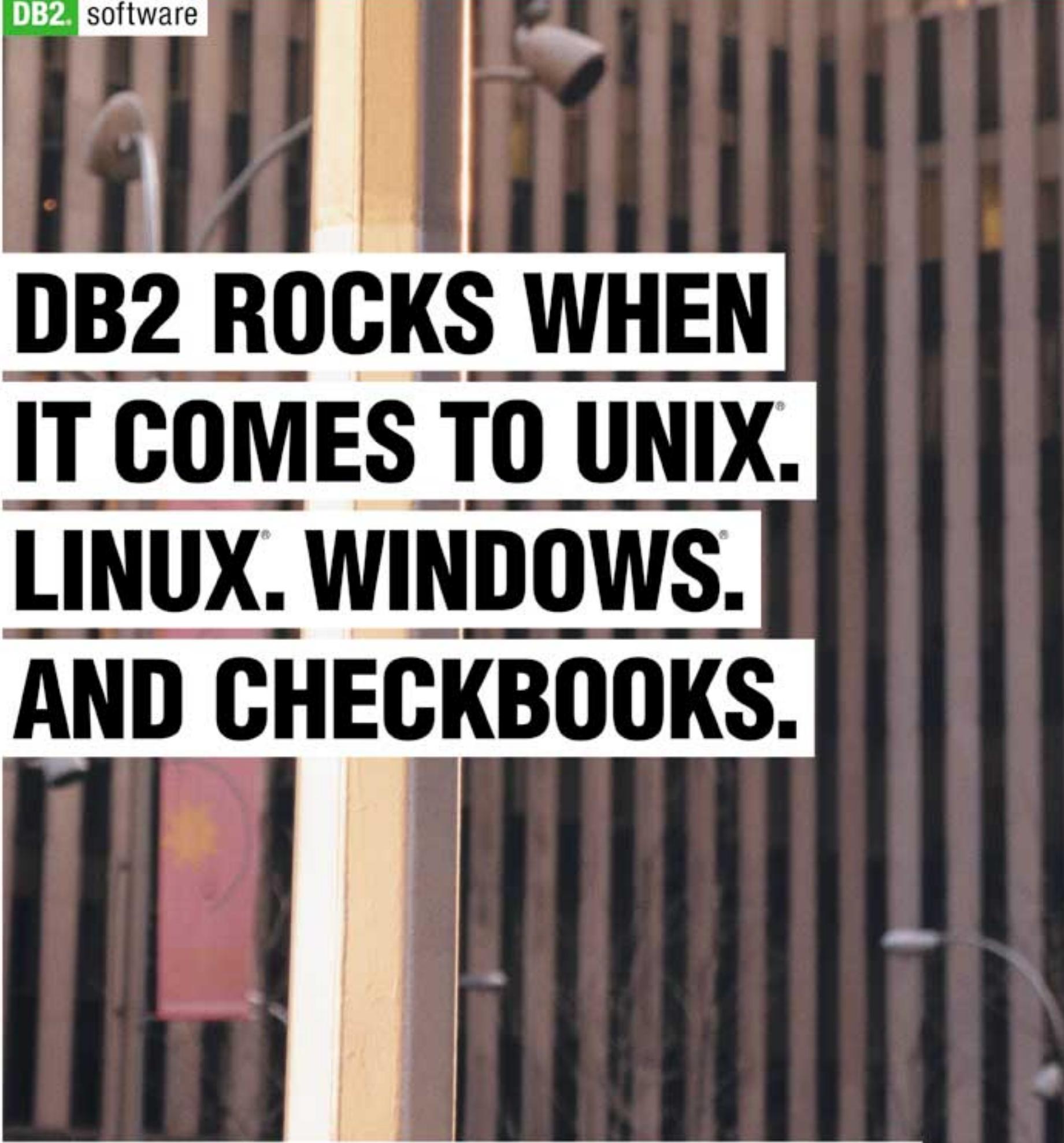
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TeamShare Looks to Solidify Footing

New management team hopes to define business mission, market space

BY CHRISTINA M. PURPI

When is a collaborative defect-tracking tool not a collaborative defect-tracking tool? When it becomes a business process management tool.

Confused? So, too, was the new CEO of TeamShare Inc., Jeff Rhodes, who took the position in April as part of a management overhaul. He started to research the company in January and found through customers that defect tracking "was only 20 to 30 percent of what we do." Rhodes and the rest of the executive team were to hold a strategic planning meeting late last month "to bring substantial clarity and focus to exactly who we are, what we do and what our mar-

ket is," Rhodes said. With the appointment of Rhodes as CEO, Daniel Frydenlund to chairman of the board, and Daniel Meitus as vice president of marketing and product planning, TeamShare hopes to clearly define the focus and direction of the company.

Rhodes replaced Bruce Huebner, who continues to play an advisory role with the company (www.teamshare.com). "We wanted to put people in place to take us to the next level," said John Keller, director of product management.

Rhodes explained that "our revenue has been flat for the last couple of years." Last year TeamShare fell short of being a profitable company; however,

he said he expects this fiscal year to be very profitable and hopes to become a major player in the process management space. According to Rhodes, TeamShare is already 20 percent to 30 percent ahead of plan in revenue for this quarter.

Into this business twister was released TeamTrack 5.51, the company's tool that allows users to map, track and enforce business processes to the task level, according to Keller. The new version gives users the ability to drag and drop multiple fields and receive notifications of issues being worked on via e-mail or pager. It also can keep track of changes via a Web-like tool that highlights or changes the

color of a link that has been visited and can restore entered data after a user browses to another page. "These changes seem minor, but they are huge from a usability standpoint," said Keller.

What differentiates TeamTrack from the other tools out there, according to Keller, "is that it's built for the Web so all functionality is accessible

through a browser. We also recognize that TeamTrack may not be the first application installed, so we need to integrate with existing tools. For a customer who is already using ClearQuest, for example, they can still work with TeamTrack to exchange information."

TeamTrack 5.51 is currently available for \$575 per seat; a five-user license costs \$2,495. ■

IBM BUNDLES TEMPLATES FOR VERTICAL MARKETS

Builds on CrossWorlds acquisition to provide specific integration solutions

BY DAVID RUBINSTEIN

To address the issue of business process integration, IBM Corp. two weeks ago announced a series of industry-specific add-ons to its WebSphere Business Integration Server 4.1, which utilizes the assets the company acquired with CrossWorlds Software Inc. in January.

Individual vertical markets have "a whole lot of integration problems to solve," said Don O'Toole, IBM's director of business integration marketing. "They each need to address emerging standards...health care has HIPAA, retail has UCCNET...."

Admitting process integration was a weak spot in the company's offering before the CrossWorlds acquisition, O'Toole said IBM is creating a set of process templates based on CrossWorlds' Collaborations idea that are specific to the insurance, telecommunications, retail, automotive and electronics industries. These "provide an architectural road map regardless of the types of applications you're integrating, whether it's CRM or a claims adjustment app."

O'Toole said that users can customize the templates to their needs and identify the adapters needed to implement the system, adding that the templates allow for work above the adapter level, providing a view of how the operation needs to work internally and with external partners. "It pro-

vides a fast track. Customers don't have to start from a blank page," he claimed. "It's kind of a best-practices knowledge."

IBM also is working on a financial services package, called WebSphere Financial Network Integration, which includes MQ Integration Broker, formerly called MQSI, and financial network components. The bundle should be available later this year, priced at \$62,000 per capacity unit. O'Toole explained, for instance, that an Intel microprocessor might represent one capacity unit while a mainframe system might represent 10 to 12 capacity units, based on load.

O'Toole also previewed enhancements to the WebSphere Studio Application Development environment that will be available in the fall. Key improvements are a series of adapters based on CrossWorlds technology for WebSphere Business Integration Server that O'Toole said will be re-engineered for legacy products, and a Business Integration adapter framework for creating custom adapters. O'Toole said he expects the tools to be fully compliant with the company-driven Eclipse open-source development framework by year's end. Also to be released in the fall is WebSphere Business Connection, which functions as a gateway for integrating across a firewall, and will allow for process templates to cross boundaries using SOAP and XML. ■

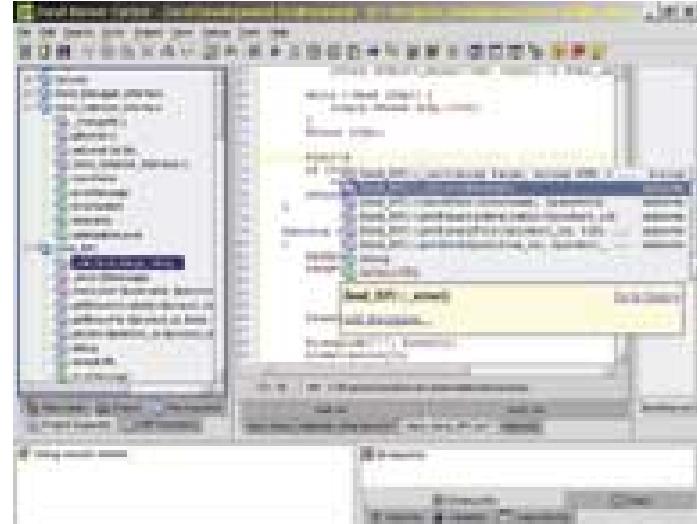
Zend Updates Studio for PHP Development, Adds Mac Version

BY CHRISTINA M. PURPI

Zend Technologies Ltd. has released the second version of its Zend Studio, an IDE for PHP development, to include usability features such as a code completion engine, a project inspector and enhanced editing capability. The company also has added a Mac OS X version.

PHP, an open-source scripting language originated in 1995, is mainly used for Web development and is not tied to a specific operating system. According to Zeev Suraski, CTO and co-founder of Zend (www zend com), PHP is installed on 25 percent of the Web servers on the Internet and is mostly used in medium-sized companies. "It's not as complicated as Java," he said, and can be used by a wide variety of developers, from a beginner to an expert.

Version 2.5 of Zend Studio, which was originally branded as Zend IDE, was released on June 5 and solves a major problem of keeping code documented with its variable code completion feature, according to Suraski. "We added a small toolkit, that for every function you write, there's an HTML-type link that gives you the ability to edit a description for



A small toolkit was added to Zend Studio to help with code documentation.

the function." He explained that it adds comments so all a developer has to do is write a short sentence describing what the function does, and every time afterward it displays the same description. "In other words, it does the dirty work," said Suraski.

Another addition to version 2.5 is Project Inspector, which shows the structure of classes and functions and also has the ability to jump between code elements and a project. Other small enhancements were made in the code editor, "for example, the ability to add HTML tags

and navigate through brackets," explained Suraski.

"What differentiates Zend Studio is its understanding of PHP," claimed Suraski. Included in Studio are the original IDE, an information center, Web-based help and references for PHP, and a server center, which is an application installed on the server side to facilitate administration and improve security. Version 2.5 is available for Linux, Mac OS X and Windows and is priced at \$195 per developer, or \$249 for Zend Studio Plus, which adds one year of support and updates. ■

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Sleepycat Puts XML Engine in Flagship DB

BY EDWARD J. CORREIA

Open-source database developer Sleepycat Software Inc. is working on an add-on to its flagship Berkeley DB in the hopes of providing C++ and Java developers an XML data man-

agement engine for building multithreaded application-specific databases (ASDBs) for use in systems running its database.

Sleepycat CEO Michael Olsen said Berkeley developers will be immediately familiar with

the new tool, called Berkeley DB XML. "It's exactly the same thing they get from Berkeley DB, except that they can now store and query XML using XPath query language," he said.

And while XML might be

useful as a common ground for disparate companies, according to Olsen, native data storage also will be important. "We're convinced that much of that data will need to be stored in native format. If you're building a site

that is accepting trades or generating invoices using XML, you really want to store your input and output in native format so that it's clear to you and your partner what data was exchanged. We store it in the same embeddable database that we've got with Berkeley DB, which disappears into the platform they are using."

Olsen said that what will set Sleepycat's tool apart in the XML market from competitors such as Exelon, Software AG and XML Global will be the company's database roots. "We started with a reliable database and added XML. What a lot of the XML start-up companies have done is started with XML and tried to build a reliable database underneath," he said.

Berkeley DB XML is scheduled for release by year's end for Linux, Solaris and Windows. The company (www.sleepycat.com) says it plans to set the price once it is nearer to completion. ■

BEA

< continued from page 3
to look like: Who is it talking to on the client side, and what resources is it using for its business logic?" The output from the designer is a JWS file, which can be stored on the app server and will be automatically compiled and executed by the runtime, which Sjogreen described as a container for the JWS file.

The Workshop runtime environment will be released as an add-in for BEA's WebLogic app server only, but that doesn't mean that Workshop is a proprietary environment, said Sjogreen. "We're focused on supporting our own app server, obviously, but as far as other app servers' support, we're hoping we can do that through standardization of JWS. If JWS is a standard, you can take your JWS file and run it on any JWS container on any app server you want." When pushed to be explicit, he confirmed, "To be clear: a Workshop-built application in version 1 will run on WebLogic server only," but then added that "we're being as open as possible to push the innovations here into the standards layer."

Sjogreen said that pricing would be released when the program became generally available at the BEA eWorld Europe conference in Paris on June 24. ■

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SpiritSoft Provides New Messaging Connections

BY CHRISTINA M. PURPI

SpiritSoft Ltd. last month announced SpiritWave Integration Server, a new extension to its SpiritWave Message server that the company says provides facilities necessary to allow dif-

ferent messaging infrastructures to interconnect.

According to the company, Integration Server provides an integration point between Web services and JMS, transformation tools to change one mes-

sage format to another, network clustering for load balancing and fault tolerance, and integration with non-JMS messaging systems.

Integration Server is based on J2EE and Web services stan-

dards such as SOAP and UDDI, and also supports XML, according to Nigel Thomas, director of product marketing at SpiritSoft (www.spirit-soft.com). Integration Server is scheduled to be released this summer; pricing

SYSTINET ADDS MORE SECURITY IN WASP 4.0

BY CHRISTINA M. PURPI

Two-year-old Systinet late last month was expected to release version 4.0 of WASP, its Web services platform, to include major security enhancements, a stronger management console and seamless integration with .NET- and Java-based systems.

Systinet's Web Applications and Services Platform comes in a Java version and a C++ version, and includes a development tool that plugs into existing Java IDEs such as Borland's JBuilder, IBM's Eclipse and Sun's Sun ONE Studio. Also included are the WASP Server, the runtime application and the WASP UDDI Server.

The new features in version 4.0 include an enhanced security framework that "allows us to digitally sign and encrypt the XML in the messages we're sending back and forth," said Anne Thomas Manes, CTO of Systinet (www.systinet.com), which in March received \$21 million in first-round funding from Warburg, Pincus Venture Partners. "We support every mechanism for authentication, and it's all done via middleware so you don't have to do special coding within the application, and so security can be managed at the administration level instead of at the programming level."

Another upgrade to WASP is what Manes described as a stronger management console. "Now we have a global console to manage all Web services as opposed to just an individual WASP Server," said Manes.

WASP 4.0 runs on Linux, Unix and Windows, and was scheduled for release on June 24. The development environment is free; the runtime for a single server is free for commercial use, with additional servers priced at \$2,000 per server processor. The UDDI registry is \$10,000 per server, according to Manes. ■

has not yet been set, but it will most likely cost somewhere around \$6,000 per server, according to Thomas. Both IBM's and TIBCO's messaging products cost in the \$150,000 to \$200,000 range, claimed Thomas. "Our pricing is what sets us apart, in addition to our link with industry standards." ■

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Seapine Moves to Cover Testing Life Cycle

Acquisition of QA Wizard rounds out QA, issue-tracking tool suite

BY CHRISTINA M. PURPI

Privately held Seapine Software Inc. has acquired start-up QA Wizard Inc. and has released its

tools as part of the Seapine product suite.

The financial details of the acquisition were not disclosed,

but Seapine (www.seapine.com) president Richard Riccetti explained it was a stock deal, with QA Wizard becoming a wholly

owned subsidiary of Seapine.

"The reason we chose QA Wizard was because they had an almost fully developed product,"

said Riccetti. "When demonstrated, [its products] were technically ahead of market leaders such as Mercury Interactive, Empirix, Segue and RadView," he claimed.

The acquired company's products, QA Wizard and Load Wizard, will become part of the Seapine Development Suite. The suite also includes Seapine's own Surround SCM and TestTrack Pro 4.7, which adds the new TestTrack Pro SDK. The SDK enables developers to integrate TestTrack with help-desk and CRM solutions to manage more of the development process.

"Our goal was to expand our focus to manage the whole software development life cycle: every point along the development process, the testing process and through deployment," said Riccetti.

Riccetti explained that QA Wizard is an automated testing application, comparable to Mercury Interactive's and Empirix's products. "It can script very quickly because the engine doesn't require programming. You can go back and edit the scripts, which saves time because you're producing less scripts."

Load Wizard is a performance load-testing tool that simulates thousands of users simultaneously running against a Web site, which evaluates response time and reliability, Riccetti said.

Surround SCM is a client/server, cross-platform SCM tool that integrates tightly with TestTrack Pro, allowing for change management by tracking the historical information behind the change, explained Riccetti. "It's a snap-in replacement for [Microsoft's] Visual Source Safe, a product line that's notoriously slow, buggy and does not support remote access." Surround SCM includes GUI support on Linux, Mac OS X, Solaris and Windows and is scheduled to be released into beta this month.

"What differentiates us from all competitors but Rational, is that we're offering full management of the SCM life cycle," claimed Riccetti. "There are few that offer a suite of integrated tools that allow you to take requirements, turn them into products, create test plans, then turn them into test cases which are executed."

QA Wizard is available now and costs \$4,995 per license. Load Wizard will not be available until September. Pricing has not yet been released for Surround SCM and Load Wizard. ■

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Merant Creates Collage of Code, Content

After divesting COBOL, new managers retool content management software

BY DAVID RUBINSTEIN

With a new management team in place and more than \$100 million in its pockets from the divestiture of two groups, Merant International Ltd. is broadening its PVCS and code management offerings to more closely tie in Web publishing in the updated Collage 3.0 enterprise content management tool set and server.

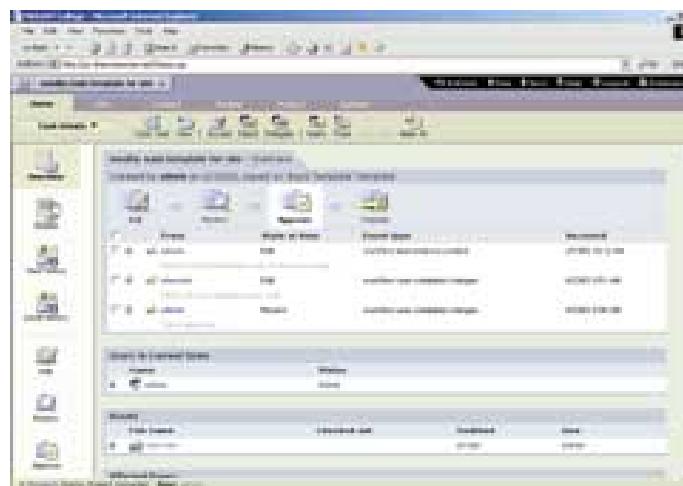
After selling off its COBOL transformation division as MicroFocus and its data connectivity branch as Data Direct, Merant (www.merant.com) last year was left with its code management tools and an Oracle change management product. Then, late last year, the board brought in former Xerox executive Gerry Perkel as CEO and made changes in its sales and management teams.

Having seen a need for managing both code and content in a unified product, Merant acquired Net Objects in February 2001 and its Collage Web content management tool. At first, Merant used the

technology to create PVCS Content Manager tool, which it released last October. This release replaces PVCS Content Manager, and according to Martin Frid-Nielsen, Merant's vice president of WCM development and a founder of Net Objects, tight integration with Merant's SCM tools provides customers with the ability to track Web site issues at a high level as well as provide a more collaborative work environment, bringing in developers, graphic artists and business analysts.

"If I want to book an airline ticket on the Web and for some reason I can't, the [site provider] isn't sure if it's a code or content problem," Frid-Nielsen said. "They need a process that spans those two things."

Web content management, he said, grew from code configuration management, adding that the differences between the two disciplines will diminish over time. "It's a whole new area for IT," he said. "It used to be a marketing issue. Now IT is



A task management tool allows collaboration on projects and workflow.

holding the bag. They know how to manage the systems [and] do the scalability."

While Merant is not the first company to bring code and content management together—Rational Corp. and Starbase Corp. both rolled out solutions in late 2000 tied in with the Vignette Web content management offering, and Interwoven Inc. also competes in the space—Frid-Nielsen claims Merant's solution's

advantage is that it's a completely integrated single-vendor product with a common interface.

He added that Merant's product also emphasizes process and workflow. "You need to be able to transfer baselines of code between code and Web developers. As the code reaches milestones, you want to tie it up with the content and deploy them together," he said.

Because of an integration

with Merant's PVCS Tracker tool, issues can be fed into both Merant's PVCS Dimensions and Version Manager SCM tools as well as Collage. The company, he said, is currently working with partners on a Web analytics dashboard that will address site performance issues.

Frid-Nielsen touted a graphical workflow builder and a browser-based contribution module as the most important new features in Collage 3.0. The module provides a WYSIWYG mode so contributors can take full advantage of HTML and preview rich content prior to deployment.

Among other new features are the ability to manage tasks with workflow control, enhanced auditing and reporting and automatic notification. Collage 3.0 sells for \$35,000 for a content server, with additional per-user fees; the price is substantially lower than the \$90,000 per server Merant was charging for PVCS Content Manager. ■

Wakesoft: Architecture Server 3.0 Eases Change

New manager components abstract logic from application tiers

BY EDWARD J. CORREIA

Last month, Java developer Wakesoft Inc. launched Architecture Server 3.0, the latest version of its application framework for J2EE servers that now includes Architecture Manager, a set of configuration files designed to abstract business logic from application tiers.

Architecture Server, the company's flagship, includes a collection of predeveloped program templates, adapters and commonly used program code developed using best practices from Sun BluePrints and others, which, according to the company, are designed to aid developers in the proper methods of application development and reduce the amount of redundant programming necessary.

Krishna Gollamudi, president of Wakesoft (www.wakesoft.com), described how the new components interact with the framework as a whole. "The Manager is the bridge between the frameworks, which

is your programming API and the Java classes that support that API, and the classes that talk to the underlying infrastructure adapters, which talk to the app server."

Harley Sitner, Wakesoft's senior director of marketing, characterized the new components as a set of configuration files that work with developers' existing Java programming tools and are used to change the behavior of their applications. "It lets you build [them into] services," he said, asserting that effective Web services must contain what he called service-level boundaries, or program logic that is not tied to a particular application tier.

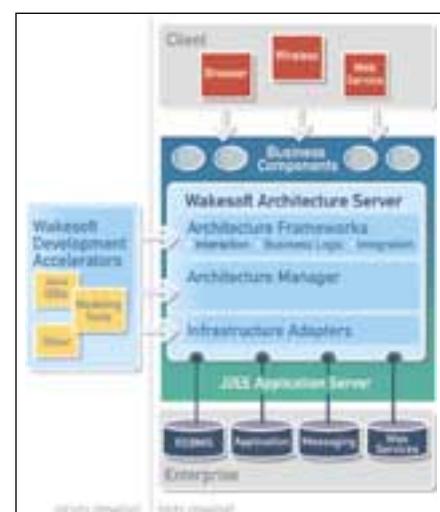
Gollamudi illustrated the point. "Let's say a customer puts a lot of their logic in the servlet, or Web tier. It turns out that some pieces needed the transactional integrity of an EJB. When they make the transition from servlet to EJB, it requires a complete repro-

gramming and refactoring of their application."

Architecture Manager solves this problem, according to Gollamudi, by decoupling application logic from specific applications tiers. "Customers are able to transfer their logic easily from one tier to another if another way of doing persistence comes along, for example. You're in a position to exploit new technologies without reprogramming. Every change

does not become a reprogramming job, but instead is a reconfiguration job. That's what we bring to the table."

Architecture Server 3.0 is available now for \$14,000 per processor; developer licenses are free. It has been certified for BEAs WebLogic, IBM's WebSphere and Oracle's 9iAS application servers. ■



Architecture Manager is the final component in Wakesoft's J2EE framework.

BZ MEDIA LAUNCHES WEB SERVICES EVENT

BY ALAN ZEICHICK

BZ Media LLC is producing a Web services conference in New York City Oct. 1-2. The Web Services Development Conference, colocated with Penton Media Inc.'s Internet-World conference, will offer two days of practical XML and Web services training for software development managers and senior development staff.

BZ Media is the publisher of SD Times.

"What sets this conference apart is that we're not trying to sell the benefits of Web services," said Ted Bahr, president of BZ Media. "Rather, the emphasis is on getting the job done: teaching enterprise developers what they'll need to build, test and deploy Web services using current stan-

dards and current software tools and platforms. Forget theory. Now it's time to put the technology to work to solve real-world interoperability, integration and Web migration problems."

The Web Services Development Conference (www.wsdevcon.com) will be held at the Jacob K. Javits Convention Center. ■

News Briefs

MORE PRODUCTS

◀ continued from page 4

toolkit. The new **WebFlex** toolkit, which runs as a CGI application, costs between \$2,000 and \$5,000, depending on deployment options . . . TogetherSoft Corp. has shipped a version of its **ControlCenter** collaborative IDE for Sun's new Portal Server 6.0 . . . Artisan Software Tools Ltd. has updated its **Real-Time Studio** to version 4.2. The updated UML modeling software now offers reverse engineering and round-trip synchronization for Ada applications, and a faster C++ analyzer . . . ActiveState has a free update for its **Visual Perl** development environment. Version 1.2.1 supports the Perl Development Kit 4.1.1 build 403 or later, and has a more stable installer . . . California Software Corp. will be updating its **Unibol 36** software, which is used for terminal emulation and Web-to-host connectivity for AS/400 servers. The new version, 8, uses Visual Basic as its scripting language, and can be integrated with Oracle databases . . . MetraTech Corp. has updated its billing software, **MetraNet**, making its functions available as XML-based Web services. Version 3.0 also includes new security features . . . Microsoft Corp. has released the second beta of its **Java Language Conversion Assistant**, a tool that translates Visual J++ 6.0 and other Java code to Microsoft's C# language. The second beta allows the consumption of ActiveX and COM components, can more easily convert non-Visual J++ Java files, and works with threads, delegates and more JDK 1.1.4 classes than the first beta . . . Trolltech AS has released a free edition of **TeamBuilder**, its Linux-based peer-to-peer utility that distributes the build process to multiple computers on the network. The free version can work with three computers; beyond that, the software costs \$750 for five computers and \$1,200 for 10 . . . Perfice Software Inc. has two plug-ins for its namesake software configuration management system. The Plug-in for Microsoft Office lets users interact with the **Perfice SCM** server from within Word, Excel or PowerPoint. The new Reporting System lets developers or managers design reports using a new SQL command-line client; output can be accessed via ODBC. Both modules were expected to be available for free download by late June . . . Intraware Inc. has updated its **SubscribeNet** electronic software delivery system to better support internationalization. Version 6.0 also allows ISVs to manage their own e-mail notifications, and lets a single end user control multiple accounts.

PEOPLE

Kim Berndt has joined ObjectFX Corp. as business development director. He previously worked as national OEM sales manager at Secure Computing Corp. . . . Rational Software Corp. has promoted **David Henshall** to CFO; previously, he served as VP of finance. The former CFO, **Timothy Brennan**, will continue as an adviser to the company . . . **Frost Prioleau** has stepped down as president of Intraware Inc. but will remain on its board of directors. CEO **Peter Jackson** will resume the title of president . . . Zucutto Wireless Inc., which builds Java processors for embedded devices, has named **David Grooms** as its new CEO; **Mark Wells**, the current CEO, will continue as chairman . . . XML Global Technologies Inc. has appointed **John McLaughtry** as president of the company. McLaughtry, who began his career with IBM Corp. in the 1970s, will be responsible for XML Global's operations.

STANDARDS

Sun Microsystems Inc.'s Java Community Process has community drafts of its **JSR-152 JavaServer Pages 1.3** and **JSR-154 Java Servlet 2.4** specifications; a public review draft of the **JSR-112 J2EE Connector Architecture 1.5**; and a proposed final draft of its **JSR-40 Java Metadata Interface**. The expert groups for **JSR-6 Unified Printing API** and **JSR-59 J2SE Merlin** have issued final releases of their specifications . . . The W3C has released the first working draft of its **Web Service Description Usage Scenarios** document, which describes interfaces to Web services. The **Exclusive XML Canonicalization 1.0** spec is now a proposed recommendation; this spec shows how to exclude context from subsets of an XML document. And the QA Working Group has released working drafts for its **Quality Assurance Framework**. ■

MKS Renames Asset Management Software

BY ALAN ZEICHICK

MKS Inc. has updated and rebranded Discover, the asset-management software it acquired along with UpSpring Software Inc. in March 2001. The first release under the new name, Code Integrity Enterprise 7.4, replaces Discover 7.3.

According to the company (www.mks.com), the version 7.4 release incorporates impact-analysis capabilities into the tool, which can be used for both C/C++ and Java code. Code Integrity Enterprise also can be

run within Borland's JBuilder IDE, and includes an improved tree pattern-matching algorithm. It's also faster, claims MKS, as it simplifies the tool's previous five-step model-building process down to three steps: parse, update and finalize.

The new brand name fits in with MKS' other development tools, which include the Source Integrity code management server, Engineer Integrity quality assurance suite and Integrity Manager workflow and process control system,

according to Dave Martin, MKS' vice president of product management.

Separately, MKS updated its MKS Toolkit, a set of Unix command-line utilities for Windows. The version 8.1 release includes an update for SSL-based secure shell, secure telnet and remote utilities; a better ping monitor; better support for HTTPS; and a new XML parser. The update also can run on Windows XP on Itanium processors. The software is priced at \$359. ■

NOVELL

◀ continued from page 1

after searching for the right fit for over a year.

According to Chris Stone, vice chairman for the office of the CEO at Novell, this stool now consists of Novell, with its network management and security products; Cambridge Technology Partners, which it acquired in July 2001 for its methods and background in application development; and now SilverStream, with its Web services technology. "That's what

was missing—the ability to build out our services from an application development perspective. That's what SilverStream does for us," Stone said.

The deal, originated by Novell, helped to eliminate a major issue facing potential SilverStream customers. David Litwack, president and CEO of SilverStream, explained that customers "have to fight the concern that 'your products are the best we've seen, but we're nervous about buying strategic products from a small company.'"

Looking ahead, SilverStream will operate as a subsidiary of Novell, which will retain key members of SilverStream's management team. "We don't anticipate a reduction in employment because the two companies are complementary; therefore roles aren't duplicated or overlapped," claimed Stone. Novell has roughly 6,000 employees while SilverStream, which will retain its offices in Billerica, Mass., has 480.

What does the future hold for Novell? "We are considering other acquisitions that could round out other areas," Stone explained, as there are still holes in Novell's strategic offering, he said. But the company will continue to build internally from its own engineers, he added. "We are growth-oriented, not acquisition-focused."

Novell plans to offer a suite of products with all the pieces needed to develop services-oriented applications. "Our goal is to be cross-platform," said Stone. "We're aiming at a higher level than app servers—the first step in creating app server integration." Details regarding specific product offerings will be available in the upcoming months.

eXtend, SilverStream's integration server, will probably be bundled with NetWare, Novell's network operating system, which, according to Stone, owns approximately 19 percent of the server market.

Will Novell succeed in its newfound market space? "There's big competition out there," pointed out Meta's Roth, referring to Microsoft, IBM and BEA, the Web services solutions leaders. He doesn't expect Novell to crack the top three, but believes it could battle Oracle and Sun for market share. ■

ENOSYS

◀ continued from page 1

have investments in EAI, and are looking to energize and leverage those investments. That's where EII and our suite fits in," Pai said.

The Integration Suite is composed of the Enosys Integration Server, the Design Suite, which includes a Web Application Builder, a Web service Builder and a Query Builder. Also included are the Enosys Management Tools.

"Six to 12 months down the road, I'm sure we will run into some of the EAI guys trying to offer data integration solutions or trying to partner with us," Pai speculated. He claimed the suite works across all types of databases and platforms—something most EII solutions currently do not offer. "We are entirely Java-based, so there is no dependence on specific platform."

Version 1.0 of the Integration Platform was available last month with pricing starting at \$30,000 per server. ■

WEBGAIN

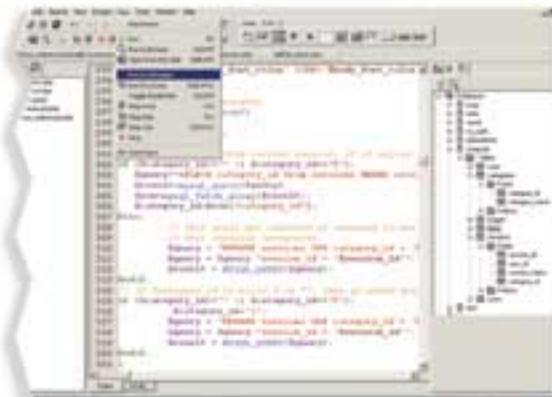
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did not return repeated phone calls for comment; neither did Warburg Pincus or BEA spokespeople. The physical assets of the California office—desks, computers, phones—were sold at auction June 13.

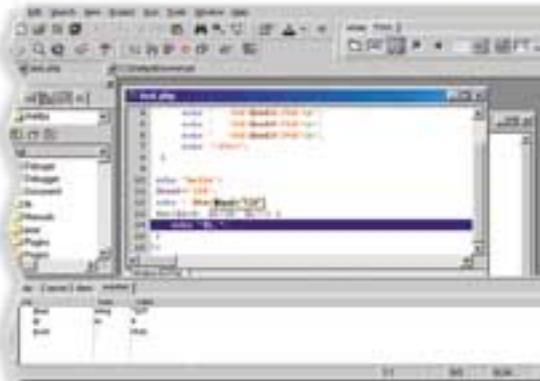
Kathy Quirk, an analyst at Hurwitz Group, speculated that internal business problems broke up the company, and believes the IDE fell victim to competitors in the market, as development tools from Sun Microsystems Inc. and Oracle Corp. posted strong

gains, while IBM Corp. and Borland Software Corp. remained strong.

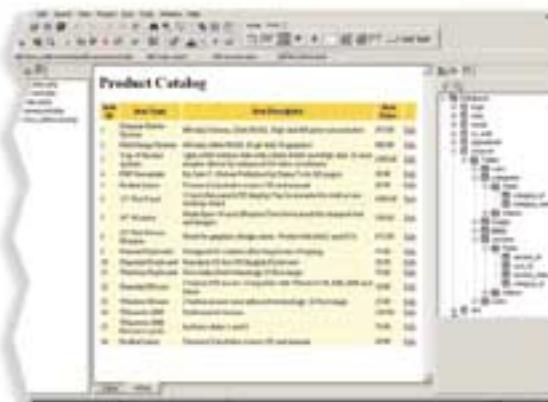
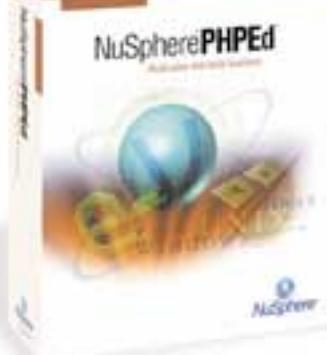
The fate of WebGain's intellectual property, including the VisualCafé IDE, TopLink object-to-relational database mapping tool and the StructureBuilder modeling tool, was uncertain, though the sale of TopLink to Oracle had been rumored at press time. Oracle's technology network Web site on June 18 began listing a migration for VisualCafé projects to its 9i JDeveloper tool. Other sources indicated WebGain itself would make the IDE available as open source. ■



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Alan Zeichick, co-founder and editor-in-chief of *SD Times* and a columnist for *Red Herring*, began his career as a mainframe systems analyst and developer. Since 1984, he has written nearly 2,000 articles for dozens of technical and industry publications, and is in frequent demand as a speaker at such events as Comdex, NetWorld + Interop, PC Expo, Software Development Conference, IBM Technical Interchange, and JavaOne.



LARRY O'BRIEN

Larry O'Brien, founding editor of *Software Development Magazine*, has been described by software engineering legend Larry Constantine as "the best technical manager I've ever met." The well-read author of hands-on articles on leading-edge technologies, O'Brien recently served as lead architect for a series of J2EE-based Web services projects, and used the .NET Framework as the basis of his latest patent application. A popular instructor at development conferences, his latest book is "Thinking In C#."



ANDREW BINSTOCK

Andrew Binstock, principal analyst at Pacific Data Works, is an expert on technologies ranging from Web services to middleware to programming languages. Today, he works with corporate clients and contributes *SD Times' Middleware Watch* column; previously, he served as a senior technology analyst at PricewaterhouseCoopers, as editor of *UNIX Review*, and as founder of *The C Gazette*. His best-selling "Practical Algorithms for Programmers" is currently in its 12th printing.

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- 1:30-2:45: Tools and Frameworks for Building, Testing, and Deploying Web Services
- 3:00-4:30: Building and Deploying Web Services on Java/J2EE

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INTERNET WORLD
Fall 2002

Altium Tool Suite Hits Moving Targets

Vendor claims StarCore compiler generator builds faster code than competitors

BY EDWARD J. CORREIA

Development tools maker Altium Ltd. in late June was set to release Tasking StarCore Development Tool Suite 1.1, an integrated development environment for C/C++ that includes a compiler generator for Motorola's StarCore configurable DSPs that, according to the company, generates more efficient application code than even Motorola's own offerings.

"There are tools from Metrowerks and Green Hills. Wind River's is coming. Benchmarks we've performed internally have proven that our tools produce smaller and faster code," than competitors, said Stephan Paternotte, product marketing manager for the StarCore tools at Altium. The company declined to provide any actual benchmark data to SD Times, however.

StarCore, the alliance be-

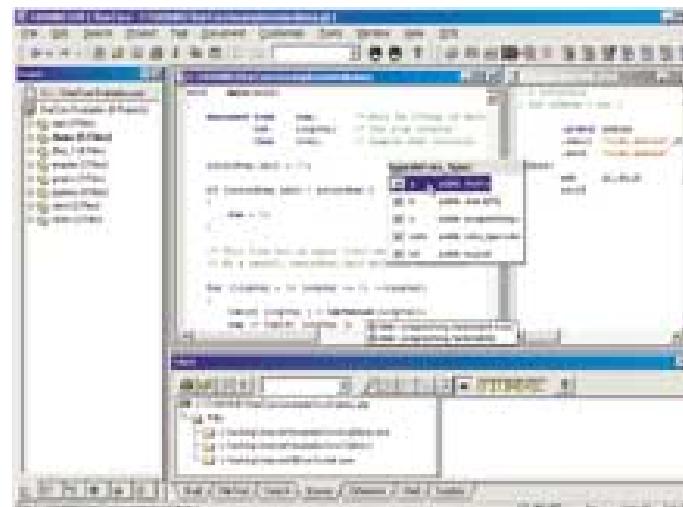


Altium's compiler can adapt to changes in chip design, says Paternotte.

tween Motorola and Lucent, also produces a compiler. Mark Gesser, product marketing manager for StarCore tools at Motorola subsidiary Metrowerks Inc., disputed Tasking's performance claim. "CodeWarrior has been shown to produce faster and tighter code than any of our competitors on the kinds of real-world applications being developed for telecommunications. The larger and more complex

the application, the better we stack up," he said.

Gesser offered to provide his company's benchmark data, but had none against Altium's new tools. "Once they have released their product, we will purchase and benchmark against it. Would it be proper to report their benchmarking data before their competitors have had a chance to actually run our own tests?" John Carbone, vice president of market-



Tasking StarCore tool suite will include a configurable compiler generator.

ing at embedded development tools maker Green Hills Software Inc., also discounted Tasking's claim, comparing compiler development to a game of leapfrog. "You build one [compiler] and maybe six months or a year later you come out with an improved one. And in between, someone can target your previous one. Our compiler has

been leapfrogging Motorola's for years."

Tasking's compiler (www.tasking.com/products/starcore) also stands out, according to Paternotte, for its ability to adapt along with the needs of the applications, which include those written for mobile phones, voice over IP and others performing digital process-

ing. "It's a fairly simple thing to add in or leave out instructions [and] to program memory modes," he said, adding that the ability also becomes important as a processor changes or improves. "Chip makers add little features here and there, and also are moving into configurable architectures that allow the user to [add and omit] features as needed. It's a no-brainer for us to adapt an existing compiler for these new chip features."

Paternotte said that developers already familiar with programming StarCore DSPs will have the easiest time using the new tools. "Because we've implemented a good number of StarCore-specific features, you may benefit from knowledge of StarCore architecture," but he added that most developers will need no special skills to use the tools. Altium's suite, which will be available for Solaris and Windows development hosts, will sell for \$5,390 per seat. ■

PointBase Adds JDBC 3.0, SQL Server Support

Embedded Java databases now more portable, company says

BY EDWARD J. CORREIA

Java database developer PointBase Inc. has added JDBC 3.0 interfaces to its PointBase Server and PointBase Embedded relational databases, claiming that developers can now create synchronized and application-specific databases that can work with multiple host databases from a single codebase. The company also has added full SQL Server support to its UniSync synchronization tool and enhanced PointBase Micro, its small-footprint RDBMS. All four products are now at version 4.3.

According to Steve Jones, vice president of engineering at PointBase (www.pointbase.com), the main advantage of compliance with Sun's JDBC 3.0 specification is the ability to perform metadata calls, which enables a developer to design source code that queries the host database and learns how to exploit its capabilities. "That allows a single source code to run effectively against our database as well as Oracle, [Microsoft's] SQL Serv-

er and others, even though each server may have different underlying capabilities." The alternative, he said, is to develop different source code for each server. "If you couldn't query the product to [learn] what its features are, you would have to constantly change your [code] depending on how the database underneath it behaves."

For developers, Jones said there are other portability-related benefits to keeping

code JDBC-compliant. "If you're writing in Java and you're going to manipulate data, if you conform to JDBC you can plug in our product, Oracle or others at runtime."

PointBase Server and Embedded are intended mainly for developing multithreaded networked client/server applications running on desktop machines and large handheld computers, Jones said, adding that the two share essentially the same code-

base. "You just interface to PointBase Embedded differently. You call it with Java APIs and run it within the same JVM as your application." Each uses about 1MB of memory on the target device, he said.

The main enhancement to PointBase Micro, the company's J2ME implementation, is the ability to create in-memory databases. "That allows you to use [them] as caching databases for very fast access to data that's not

permanent to the database," such as for Web pages. Also enhanced is UniSync, which now offers bidirectional synchronization with SQL Server; prior versions offered full synchronization only with Oracle and PointBase servers. As a MIDP implementation, Micro occupies about 45KB of device memory, Jones said, and UniSync about 7KB.

Per-seat pricing for PointBase Server 4.3 and PointBase Embedded 4.3 is \$499; for PointBase Micro 4.3, it's \$49 for MIDP, \$99 for CDC, \$199 for J2SE and \$499 for J2EE. UniSync costs \$2,999 per server. All are available now. ■

INSIGNIA BREWS JVM FOR QUALCOMM

BY EDWARD J. CORREIA

Java developer Insignia Solutions Inc. has demonstrated Mobile Foundation for BREW, its first implementation of Sun's CLDC/MIDP runtime specification that it says will enable Java developers for the first time to target Qualcomm Inc.'s Binary Runtime Environment for Wireless. The software is scheduled for release this fall.

Peter Bernard, vice president of product marketing at

Insignia (www.insignia.com), said that Mobile Foundation and Jeode, the company's Personal Java VM, are similar. Both use Insignia's adaptive compiler, which he claimed improves Java performance by precompiling often-used Java code. The main difference is that "J2ME makes it easier to tune the Java implementation for the device; Personal Java is more 'one size fits all.'"

According to Bernard, the

process of deploying Java MIDlets is different from that of BREW applications, and therefore some tweaks to Qualcomm's deployment system were required. Insignia includes the Application Management System, an add-on to BREW's application manager that he said provides all the necessary plumbing. "Now they just download MIDlets and run; you can't tell Java apps from BREW apps."

Bernard said there will be

three deployment options for the runtime files. As a full download, the software will occupy roughly 400KB of device RAM. A ROM-resident version will occupy about the same amount of ROM or flash. The third option separates the Java class libraries from the VM. "You get the flexibility of an updatable VM, but you use about 200K of RAM."

The company has not released exact pricing yet, but Bernard estimated that the ROM-resident version will add less than \$1 to the cost of a device. ■



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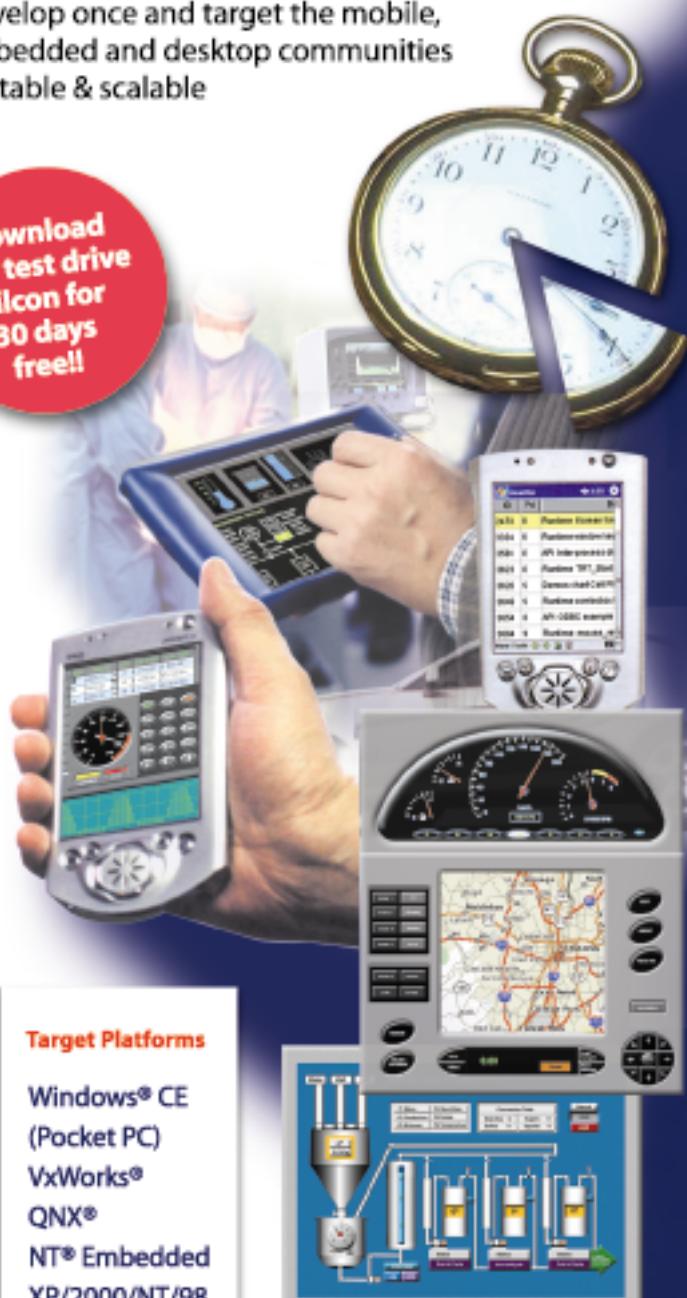
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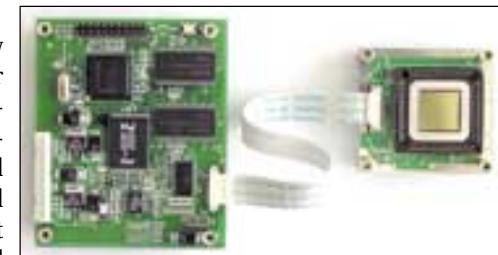
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Neurotechnologija Plugs Security Holes With FingerCell

BY EDWARD J. CORREIA

Before you allocate budget money for magnetic security cards, consider a solution that's close at hand. Biometric software developer Neurotechnologija Ltd. has released FingerCell EDK, an embedded hardware and software development kit said to provide everything needed to begin building fingerprint-based scanning and recognition systems for securing computers, building entry points and other sensitive areas.

According to Algimantas Malickas, president of the Lithuania-based company (www.neurotechnologija.com), the kit includes software that can match as many as 500 fingerprints per second, which he claims makes it suitable either for verification or identification. This allows developers to design access devices that can be used without additional smart cards or codes; just a fingerprint is enough for access, he said, adding that fingerprints don't wear out, are never forgotten and cannot be lost, stolen or duplicated. Target application sites include airports, hospitals and other public facilities, and any security-minded enterprise.



The FingerCell kit includes a StrongARM-based board with RS232, fingerprint sensor and cable.

In addition to the StrongARM-based board with RS232 port, fingerprint sensor board with cable and a power supply, the FingerCell EDK reportedly includes the company's fingerprint identification software as projects for Microsoft's Visual C++ 6.0, ARM's Developer Suite 1.1, and GCC C++, any of which occupies about 512KB of device memory, he said. Also included are object code for the sensor control and interface, and a sample fingerprint database. ANSI C source code also is available for all.

FingerCell EDK with embedded libraries costs \$6,000 or \$29,000 with source code. There are no royalties, and it is available now. ■

EMBEDIX

◀ continued from page 1

Lineo's minor vendors caused them to rethink that plan. "[Canopy and Egan] were smart enough to realize that if they screwed [minor investors] Hitachi, Motorola and Sun, they would end up with a whole bunch of assets but not much of a business." Embedix's board now consists of Harris, one member from Egan and two from Canopy, with minor investors set to receive stock grants in the new company, Harris said.

Why was news of the company's recapitalization plans kept quiet? "We didn't think it was very big news," he claimed. "At the time, we were aggressively managing the change with our customers and partners to make sure they understood it. Our financial difficulties had been covered and this was the last step in the recapitalization, and we didn't think it was that big a deal."

Thanks in part to voluntary salary cuts, Harris said Lineo is profitable for the first time ever. "We were cash positive in April, and it happened earlier than we said it would. If we don't have this thing working the way I think it should by Christmas, then I'm the wrong guy for the job and I should be out of there."

The troubled company also has divested itself of RTXC Quadros, the real-time operating system it had



If it's not working by Christmas, he's the wrong guy for the job, admits Embedix's Harris.

acquired along with Embedded Power Corp. in January 2001. The move, according to Harris, had long been part of the plan to focus on its Linux roots. "RTXC is great technology but was not a requirement for the core business," he said. The newly formed Quadros Systems Inc. has acquired the operating system along with Tom Barrett, its original developer. Barrett, a former Lineo vice president, will serve as president of the new company.

FIRST EMBEDIX PRODUCT

In late May, the fledgling Embedix released Embedix SDK 2.4, its newest set of embedded Linux development tools that it claims now delivers a package editor capable of including not only Linux components, but also a developer's own IP and that of third parties. Version 2.4, priced at \$5,200 per developer, also includes a version of Metrowerks' CodeWarrior integrated development environment that is preconfigured to work with the Embedix components.

Harris claimed that what sets the new version apart from competitors is the ability to import and convert source files into the Embedix package format. The advantage, he said, is that "it doesn't tie you to any particular Linux distribution. The package editor lets you use any version of Linux and makes it easy to incorporate other IP and BSPs," he said. ■



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Why Can't We Work Together?

Different standards, structures threaten promise of Web services interoperability

BY LISA MORGAN

Interoperability has been touted as one of the primary benefits of Web services, and yet Web services themselves pose several interoperability challenges.

At the lowest level, the different functional structures and semantics of languages, frameworks and applications can cause problems. Not all software supports Web services, and not all vendors are choosing to support the same standards. As a result, developers may be surprised to learn that the Web services they build may not operate or render as intended under certain conditions.

Web services standards are a step in the right direction; however, not everyone agrees to what degree the standards themselves guarantee interoperability among Web services.

Popular software vendors focused on Web services have agreed to support the Web Services Description Language (WSDL), which describes Web services; Simple Object Access Protocol (SOAP), which provides XML message transport; and Universal Description, Discovery and Integration (UDDI), which provides a directory from which Web services and their functionality can be identified and utilized. Move beyond these standards, and differences of opinion start becoming more apparent.

Some assert that WSDL, SOAP and UDDI alone are an adequate solution to Web services interoperability while others say they are just the beginning. As many as 20 or 30 other standards will likely come into play that ensure the robustness and reliability of messaging, security and transactions, for example. Web services standards are

going to become much more complex, and with the additional complexity will come additional interoperability challenges. Further, not all products will support the same versions of standards, and not all standards are 100 percent backward compatible.

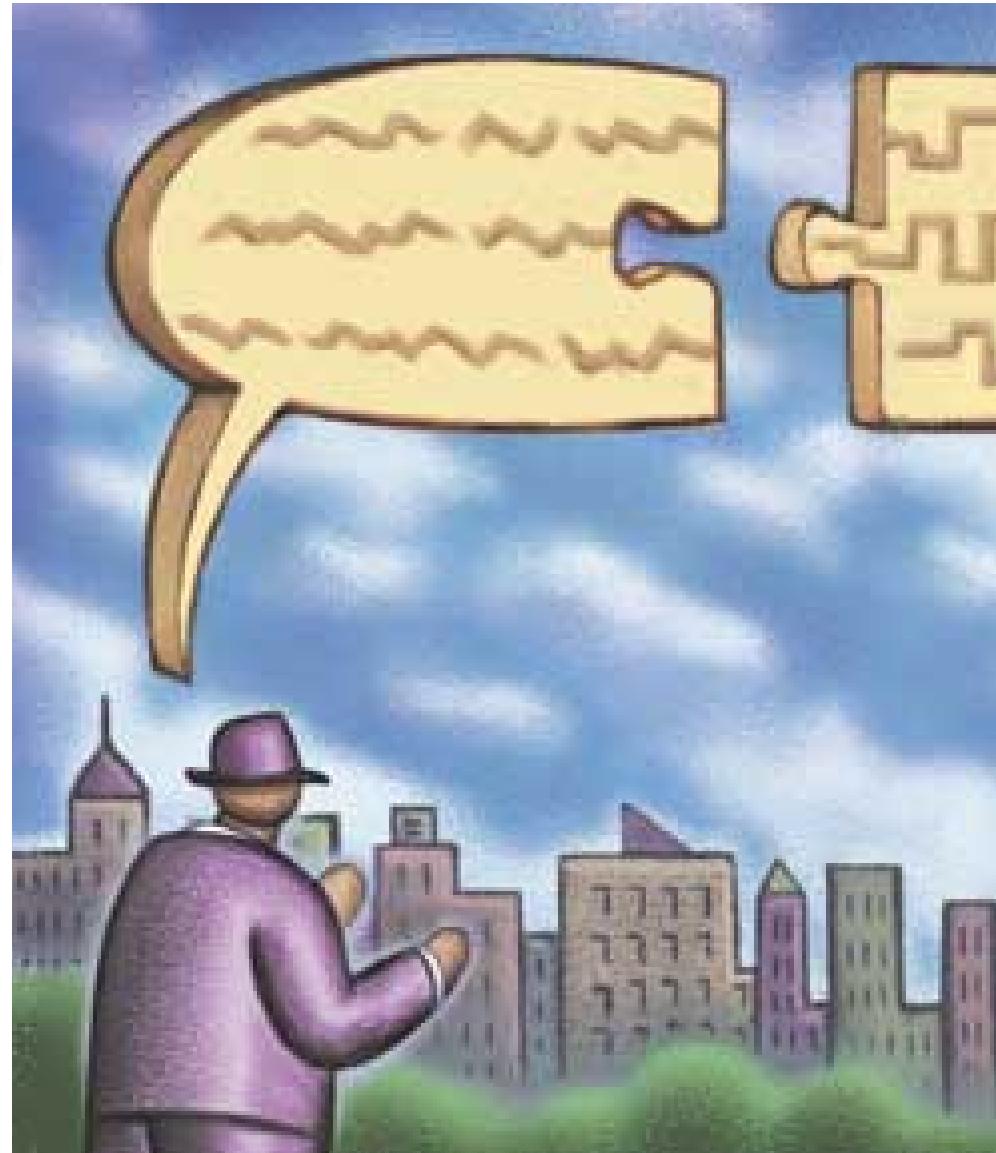
What's more, vendors may choose to support different standards. For example, the Web Services Interoperability Organization (WS-I) members interviewed for this article advocate WS-Sec, an emerging Web services security specification, while other vendors, such as Netegrity Inc., support Security Assertion Markup Language (SAML), an XML authorization and authentication framework created by RSA Security Inc.

"It's not just enough to agree on a standard; products need to work together," said Darren Cervantes, product manager at Rogue Wave Software Inc. (www.roguewave.com) "You need to be concerned about the degree to which a vendor supports a standard. Is it 50 percent or 80 percent? It matters."

HOW MUCH INTEROPERABILITY?

Despite the hype, vendors say that complete interoperability among Web services is an elusive goal at best. Standards are evolving. Vendor agendas don't always align. Different companies and industries employ different business processes. In short, forget about absolute ubiquity.

"Toolkit implementations don't always adhere to specifications," said Jason Douglas, a product manager at Web services infrastructure provider Grand Central Communications Inc.



(www.grandcentral.com). "For example, with the SOAP spec you can get HTTP binding errors. Different toolkits trigger off HTTP status faults or SOAP exclusively so you get different behavior."

Apparently, a primary challenge Grand Central customers have faced is the lack of attachment support provided by frameworks. Microsoft Corp. and BEA Systems Inc. both provide support for SOAP; however, BEA handles attachments using Multipurpose Internet Mail Extension (MIME) while Microsoft uses Direct Internet Message Encapsulation (DIME).

"How are you going to communicate if different frameworks are implementing different state extensions?" said Rogue Wave's Cervantes.

In the absence of interoperability among platforms, the true value of Web services is lost. For that reason, BEA and IBM say they are designing Web services interoperability into their tools while a handful of smaller companies are providing vendor-agnostic solutions. "Web services interoperability is critical to vendors' success," said Byron Sebastian, senior director of product management at BEA's Framework Division. "It's not just a matter of defining specifications or resolving differences between Web services created on .NET and Java platforms. You need to design interoperability into products and do interoperability testing."

STATE OF THE MARKET

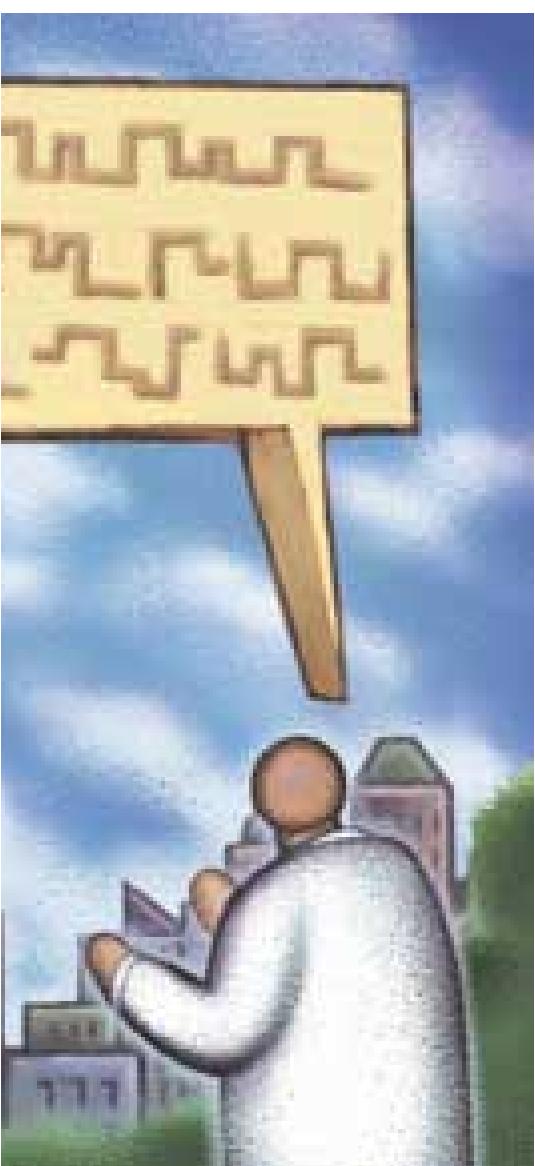
Most vendors say their customers are deploying Web services behind the firewall, either to access legacy data or to integrate parts of the organization using different technology platforms. Some are running pilots while others are beginning to aggregate Web services within the organization.

"Companies have been trying to glue applications together for years, but have faced a lot of integration disconnects because they've been hand-coding proprietary solutions," said Joe Gentry, senior director of product marketing at Software AG (www.softwareag.com). "Web services change the integration mix."

Vendors anticipate Web services to roll out in three distinct phases, with each phase requiring a more complex set of standards. During phase one, which is occurring now, basic Web services standards are being defined and Web services are being deployed primarily behind the firewall. Although some enterprise customers are making limited Web services available to trading partners, most of the Web services are information-oriented rather than transaction-oriented due to security concerns. This



Universal dynamic Web services discovery is far off, says Texas A&M's Chester



is an early market symptom, say vendors, pointing to WS-Sec.

In phase two, additional standards will be defined and transactional Web services will be made available to trusted trading partners. Phase three represents the public availability of Web services,

which most vendors interviewed for this article do not anticipate for several years, if ever.

Timothy Chester, senior IT manager at Texas A&M University (www.tamu.edu), initiated a Web services pilot a year ago, which enables students to register for classes online. He implemented it using Microsoft tools, but says there are "issues" between .NET and Java services that will require vendors to work on their toolkits. He's confident that, given some time, Web services interoperability will go the way of Web browsers. In other words, Web services will achieve an acceptable level of ubiquity as the technology matures.



Create Web services from experience, says Rogue Wave's Gray.

Chester agreed with Web services vendors that universal dynamic Web services discovery—the original Web services vision—is a long way off, not only because security, transaction and authentication standards need to be

Many Paths to Interoperability

Varying approaches still leave barriers between vendors

BY LISA MORGAN

Large and small vendors are addressing Web services interoperability in their own way, either as part of an overall product strategy or at least a point of discussion on their developer community sites.

When BEA Systems Inc. planned its WebLogic Server 7.0 and WebLogic Workshop products last year, interoperability was on the list of requirements, according to Byron Sebastian, senior director of product management at BEA's Framework Division.

BEA's not alone. Bob Sutor, director of e-business standards strategy at IBM Corp., and Ed Julson, group marketing manager for Java and XML technologies at Sun Microsystems Inc., said their companies also are actively working on Web services interoperability. Microsoft Corp. declined to comment for this story; however, the company has added some Web services interoperability pages to its Microsoft Developer Network site (<http://msdn.microsoft.com>).

"By definition, Web services have to work across operating systems, frameworks and specifications," said Julson. "Sun is addressing three major areas being impacted by Web services: the Java Platform, Sun ONE and iPlanet. We're doing everything we can to implement interoperable solutions, but, by definition, interoperability isn't one way. Microsoft has to be doing the same thing."

Some smaller software vendors, including Actional Corp., AmberPoint, Codagen Technologies Corp., Iona Technologies Inc. and Rogue Wave Software Inc., are delivering platform-agnostic products designed to ease Web services interoperability challenges. Not surprisingly, .NET and Java interoperability is a popular area of focus.

"If existing .NET and Java products connected to everything else, you wouldn't need solutions like XML Link," said Darren Cervantes, product manager at Rogue Wave. "Even J2EE implementations differ from vendor to vendor."

Rogue Wave's XML Link supports different Web services frameworks, platforms, object request brokers (ORBs) and SQL databases. It allows developers to build, deploy and test Web services that connect to existing enterprise resources over Internet pro-

defined, but because the usage model for Web services is evolving. Just because it might be possible to make Web services publicly available through a universal directory does not guarantee that the author necessarily wants just anyone to use it.

If you created a transaction Web ser-

tocols, including Hypertext Transport Protocol Secure (HTTPS).

Actional's (www.actional.com) SOAP-switch also provides interoperability across frameworks. The gateway provides API mapping and message translation. It also monitors, manages and secures Web services, and allows developers to transform legacy assets into Web services. The software supports PeopleSoft, SAP and Siebel enterprise applications; custom Java, CORBA and COM-based applications; and popular development environments such as Visual Studio .NET and J2EE.

Newcomer AmberPoint (www.amberpoint.com), an Oakland, Calif.-based start-up, launched the AmberPoint Management Foundation last month that helps pinpoint interoperability problems. The software can be deployed inside an application server or as a proxy to monitor systems, business and operational metrics. "It's a heterogeneous world," said Ed Horst, vice president of marketing at AmberPoint's Horst.

AmberPoint. "You've got Java and Solaris as the platform of choice for serious server computing, and pretty soon you're going to see .NET on every desktop. We provide insight into both."

Horst said Web services versioning is a big problem. If one Web Services Description Language (WSDL) file replaces another, the developer may unknowingly take away an operation that another Web service, application or system depends on. AmberPoint uses low-level and XML information to provide Web services management functions.

Grand Central Communications Inc. offers a translation and mapping service. According to Adam Gross, vice president of product marketing, the company is providing a Web services network that mediates among standards so customers can focus on business issues.

Iona (www.iona.com) also is addressing some of the higher-level issues, such as security and service-level agreements, in addition to basic Web services interoperability. Its Orbix E2A Web Services Integration Platform integrates

vice that's being utilized by a trusted trading partner—say a fast-food chain—that's probably OK. Now imagine you've just discovered that the Web service is being used by a pornography site, or worse.

The bottom line? Total Web services ubiquity may not be possible; it

Web services components into a single service. The software bridges applications running behind and beyond the firewall via Web services running on Java, CORBA and .NET.

SOAPBUILDERS PUTS IT TO THE TEST

In February, Iona hosted the SOAPBuilders Interoperability Lab Round III, at which vendors demonstrated WSDL interoperability between SOAP-based Web services toolkits. The SOAPBuilders Forum is an informal group cooperatively running interoperability tests, with participation from companies such as BEA, Borland Software Corp., Cape Clear Software Inc., Hewlett-Packard Co., IBM, Macromedia Inc., Microsoft Corp., Oracle Corp. and Software AG.



'It's a heterogeneous world,' says AmberPoint's Horst.

"SOAP is easy to use with the right tools, but it's not a commodity yet," said Rebecca Dias, Web services product manager at Iona. "It's difficult to deal with XML schema or to write robust implementations. Ultimately the goal is to take a Web services infrastructure, combine a number of [Web services] and orchestrate them into new applications. Right now app servers like WebLogic and WebSphere are not communicating."

Sun also is participating in SOAPBuilders, albeit behind its own walls. Julson said the company is using the test cases internally to check the Java APIs for XML (JAX). In the future, he said, Sun plans to post its test results and will participate more openly in the group.

Codagen (www.codagen.com) claims it offers the easiest solution to Web services interoperability: Push a button. Codagen Architect enables developers to model a Web service in UML using Rational's Rose or a similar tool, then automatically generate code from the model.

"Because Web services are new, customers prefer to use a UML modeling tool [because the frameworks are evolving rapidly]," said Ismail Hriss, product manager at Codagen. "At the abstract layer, you can create a framework that bridges .NET and Java."

Codagen CEO Richard Borenstein said getting to an effective implementation is hard. Toolkits from the big vendors are incomplete, so they fail to address some of the challenges developers are facing. ■

may not always be desirable, either.

"The hype factor is outdistancing reality," said Andy Gray, technology evangelist at Rogue Wave. "Go slow. Start with one case and then build from there. You're better off growing Web services based on experience than immediately broadcasting them." ■

WS-I Group Sets Definitions

Core Web services standards addressed in first Basic profile

One of the Web Services Interoperability Organization's major efforts revolves around the definition of profiles that describe how specific versions of Web services standards work together.

Through the efforts of a working group created in April, each WS-I profile will contain a core group of standards; however, the version numbers of each will be specific. For example, the first profile, called WS-I Basic, will include XML Schema 1.0, SOAP 1.1, WSDL 1.1 and UDDI 1.0—the core Web services standards, although not necessarily the latest versions of them. If the WS-I chooses to support UDDI 2.0 or later versions of WSDL or SOAP, and new versions of other specifications are released, the group can choose to update the WS-I Basic profile or define new ones, as appropriate.

"People interpret specifications and technology differently, so when you try to hook up Web services they may not interoperate," said Norbert Mikula, vice

chairman of the WS-I (www.ws-i.org) and director of Web services at Intel Corp. "WS-I will provide the basis for a common implementation."

The initial WS-I Basic profile will serve as the foundation for future profiles that may address message extensibility, binary attachments, routing, guaranteed message exchange, signatures, encryption, transactions, process flow, inspection and discovery, among other things. The association will address additional issues as driven by market adoption and emerging standards.

Within the context of a profile, sample applications will be developed that help pinpoint specific interoperability issues. The WS-I also is defining implementation guidelines that will include a set of test cases that verify compliance using WS-I sniffer and analyzer tools. The sniffer will monitor and log interactions with Web services; the analyzer will process sniffer logs to verify that the Web services are error-free.



WS-I provides commonality, says Intel's Mikula.

Developers will be able to use the tools and configuration files to ensure that their Web services conform to profiles. Mikula said the upside of profile compliance will be interoperability with all other Web services that also comply with the profile regardless of the underlying language, development tools or framework used. He also thinks the mix of WS-I members will help drive interoperability improvements.

"The WS-I isn't just a group of technology vendors—AT&T, Proctor & Gamble, United, JD Edwards and vertical players have also joined," he said. "Developers and users are explaining their perspectives, [which allows us to] address the needs of all constituents."

All constituents, it appears, other than Sun Microsystems Inc. The company is demanding a WS-I board seat; however, the extra chair is still missing from the table. Mikula declined comment on Sun's participation.

Ed Julson, group marketing manager



Not all vendors will agree, says Actional's Phillips.

for Java and XML technologies at Sun, said IBM has proposed two new board seats to which any two members—one of which might be Sun—could be elected. This is a step in the right direction; however, Sun should have been invited to participate from the very beginning, he maintained.

"Why would you [form an interoperability organization and] not invite Sun?" asked Julson. "I still question some of the motives and hidden agendas."

Julson said the WS-I is doing important work, but he criticized the group for failing to extend its focus to include electronic business. He asserted that interoperability has to occur at multiple levels, the most important of which is semantic interoperability, such as between purchase orders.

Although Sun's lack of participation continues to raise eyebrows, some say no matter who is participating, total vendor agreement on all standards is unrealistic.

"Sun may not be coming in as a board member," said James Phillips, vice president of products and marketing at Actional Corp., which is a member of the WS-I. "The reality is, not all vendors are going to agree on all standards, anyway. It's just not credible." —Lisa Morgan

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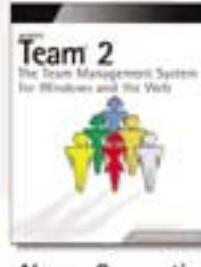
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EDITORIAL

Shakeups in the Market

After a period of relative calm in the software development industry, a series of shakeups appears to be taking place. Most notably, WebGain Inc., the tools company launched by BEA Systems Inc. and Warburg, Pincus Venture Partners, seems to have quietly closed up shop. Also, former networking heavyweight Novell Inc. has snapped up integration player SilverStream Software Inc.

To some, the presumed collapse of WebGain will come as no surprise. (Nobody from the company, including chairman Joe Menard, returned repeated calls from SD Times. After the company's voice-mail was turned off in mid-June, and the list of corporate officers disappeared from its Web site, it became fairly obvious that the rumors of WebGain's demise were true.)

WebGain's Visual Café Java development suite, purchased from Symantec, has lost both mind share and market share to Borland's JBuilder, Sun's Sun ONE Studio (formerly Forte for Java), as well as tools from IBM, Oracle, TogetherSoft and others. TopLink, an object-relational mapping utility for Java, was playing in an increasingly competitive marketplace. Finally, WebGain Studio, an enterprise application development suite comprising Visual Café plus third-party tools, was too tightly integrated with BEA's WebLogic server to appeal to a broader audience.

Meanwhile, BEA is increasing its ties to Borland and TogetherSoft, and is working with both those companies to support its proprietary Java Web Services specifications. BEA doesn't need WebGain any more—and without a compelling vision for expanding beyond a tools company focused on the WebLogic market, WebGain couldn't survive. The rumors also indicate that BEA may provide support for some of the orphaned products, and that a buyer may have been found for TopLink.

Meanwhile, Novell has purchased SilverStream for about \$212 million. Novell, whose flagship NetWare operating system has been unable to successfully compete against Windows and Linux for the past five years, has been reinventing itself as a purveyor of miscellaneous Internet-oriented technologies, such as Novell Directory Services, the Border Manager firewall and ZENworks network and content management software.

With SilverStream, Novell adds a well-regarded integration server and XML-based Web services software to its diverse mixture of enterprise server software—though the decision to operate SilverStream as a wholly owned subsidiary, rather than merging its technology into Novell's existing operations, leads us to wonder how cohesive a strategy Novell's executives have developed.

Will this purchase be enough to catapult Novell back into the foreground of enterprise computing? The company thinks it will, with executives' statements claiming that Novell will be leading the Web services market along with IBM, Microsoft and Sun. That's a tall order...but not impossible to imagine. Novell once played a dominant role in enterprise computing, before Microsoft's aggressive marketing of Windows and Novell's failed strategy to expand onto the desktop relegated it to the sidelines. Novell has the opportunity for a comeback. Let's see if it can execute. ■

GUEST VIEW

WHAT IF YOU GAVE A SHOW AND NOBODY CAME?

Over the past 25 years I have attended many trade shows, but I've never seen the sparse attendance evident in the last year. These days, opening a show is like building a new movie set with no actors to occupy it. The scene is like every ghost town you have ever seen on TV, complete with crickets, tumbleweeds, flapping saloon doors...the works. This begs the questions: Where is everybody? Are trade shows, like spaghetti westerns, past their prime? Does anybody even care about trade shows anymore?

Trade shows depend on a plentiful supply of qualified attendees for their survival. Two years ago, CMP's SD West 2000 conference in San Jose, Calif., had lots of exhibitors but had scattered attendance—some booths were empty while others held a crowd. This year, with only about 2 percent of the floor space in use, SD West's aisles were so vacant that I didn't even have to turn sideways to pass people while strolling from booth to booth. Major exhibitors were absent, and attendees wondered why.

SD West isn't alone, not by any means. JavaOne passed its marketing prime two years ago but still keeps chugging along despite a huge dip in attendance (because it is Sun's premier developer showcase and education source). Las Vegas dislikes Comdex because the attendees don't gamble, drink or tip, and though it has shrunk in recent years, it is a key venue for vendors, resellers, analysts and media. In seeming contrast, other smaller-scale, targeted conferences like Java on Wall Street are hailed as resounding successes with only a few hundred highly qualified attendees.

The attendance crisis can be attributed to any number of reasons: the dot-com bust, the massive layoffs in the high-tech community, the cutting of marketing budgets for shows, slashed travel and education budgets for those who remain employed, plus the general insecurity we have all felt since Sept. 11. This doesn't bode well for the three major players in this industry: the pro-

duction company, the exhibitor and the attendee.

Trade shows are really divided into three major categories. The very large shows (like Comdex, CeBit and the Consumer Electronics Show) while noticeably down in attendance are not hemorrhaging as badly as others. Medium-sized shows (like Software Development, JavaOne, PC World and LinuxWorld) are more focused in their content and are seriously feeling the pinch of the economic downturn. The small, boutique expos (like vendor- and technology-oriented conferences) have suffered along with minute attendance for several years, but since they have a small, targeted audience and tie in to a specific theme, they survive but don't thrive.

When a vendor decides to exhibit at a show, it is really looking for something specific. The *raison d'être* of these events is the opportunity to get products in front of people who might be willing to buy them. Sales leads are the prized bounty. As the price of obtaining leads rises, more and more companies are throwing in the towel and finding other, less costly ways to lure potential buyers.

The result is that the value of trade shows is dropping for the parties who bring money to the table: the exhibitor and the attendee. The cost of participating is so high that producers are wondering if there is a future for their once-valuable properties. The answer lies in their appeal to the target community. Shows that provide value on both sides of the equation will survive, while those who can't supply either a qualified audience of decent volume or an impressive list of exhibitors will fail.

The base issue is that there is a limited number of attendees at shows for any given year, and a limited amount of money to support attendance. Between business and personal cutbacks, everyone is now the proud owner of a shrinking budget, and their focus is on how to get the best value for their money. The bottom line is that all shows are chasing the

same dollars, and the number of available dollars is shrinking.

If education and product demonstrations are the central focus of these shows, is there an alternate delivery mechanism? We have seen the popularity of Web-based conferences soar since the technology has been in place and the cost of bandwidth has come down. Yet there is something special about being at the show, something like the county fairs of a bygone era. Getting together with like-minded people to discuss and develop ideas has a cachet that isn't available through other means. The interaction is what it is all about, and while it can be simulated, it cannot be duplicated by technological solutions. Besides, most of us need to get out more anyway!

Ultimately, the great shakeout in the trade show industry is inevitable, and will be as devastating as it has been in other industries and sectors. Old standby shows will soon be gone, and a new crop will take their place. Exhibitors will look very carefully at all shows, and participate only if they will be able to satisfy some gnawing hunger. Attendees will be splattered with hype from all of the shows, claiming the most, the best and the largest. Some shows will be canceled due to lack of interest. Others will be disappointing, considered a waste of valuable resources by attendees, exhibitors and producers alike. In the future, the very large and the very small shows will survive in their present form, but those in the middle will either struggle with restructuring and redirection or like the old soldier of song, just fade away.

Why then will we continue to be bombarded with direct mail, spam and radio ads for these shows? Hope springs eternal, and as it is said, "the show must go on." I am convinced that the dip we are seeing now is a temporary phenomenon. The trade show sector will right itself with the economy, but only for those that meet the demands of a more discriminating constituency. ■



DANA M.
MARKS

Dana M. Marks is principal of Dana Marks & Associates, a marketing communications consulting firm.

YES, WEB SERVERS MATTER

Webs servers are designed to serve Web pages. And to be useful, they have to do that quickly, in a manner that people can use, and they have to be stable and secure enough to protect the underlying network. That means that although it may seem that one Web server is as good as any other, that's not necessarily the case.

For example, when fellow columnist Oliver Rist and I tested Web servers last year, we found that on identical hardware, Microsoft's Internet Information Server (IIS), running on Windows 2000, was faster than Apache running on Linux. That's nice to know if getting the last smidgen of performance out of your server is critical. But is "being faster" the benchmark you should depend on? How about the need for a server that's stable and secure?

The problem with measuring security and stability is that it's hard to benchmark. Fortunately, it's not hard to get information about the security part, and to some extent the stability part, from independent parties. One good example is the prestigious SANS Institute (www.sans.org). Another is the FBI (www.fbi.gov). Both of these organizations are deeply interested in security, and both are working to make sure that Web servers remain secure, although they have somewhat different reasons for doing so.

Together, these groups have spent an enormous amount of

effort analyzing how Web servers get broken into, how they get defaced, and what can be done to prevent it. To this end, they've posted their findings at www.sans.org/top20.htm. This site provides a list of the top causes of vulnerability in Web servers and their underlying operating systems.

The good news about this list is that there's really not an edge for any operating system/Web server combination. You can rest assured knowing that whichever Web server you choose, you're not going to end up with something that is significantly worse than another. The bad news is that, one way or another, they all have holes.

While IIS has a greater number of vulnerabilities than Apache has (as of this writing), the underlying Unix/Linux environment is slightly ahead of Windows. However, you should know that this list changes regularly as patches are issued and new vulnerabilities are found. It pays to visit the Top 20 site on a regular basis.

More bad news is that many security vulnerabilities apply equally to all products. They're caused by stupidity in design, implementation or operation. The single biggest area of problems is when companies don't bother to apply patches that are available, and instead field their new Web servers with all of the holes

still there, inviting attacks.

The differentiator among these products is their respective levels of threat. For any number of reasons, there are a lot more virus and worm creators out there for IIS-based servers than for servers running on Linux or Unix, and for Apache on any of the operating systems it works with.

So how does this affect you, as the developer of Web pages? To some extent, that depends. If you're already committed to a specific operating system and Web server, then the least you can do is make sure that the environment you're developing in has all of the patches applied. There's no point in opening up your development system to security problems.

But if you're able to pick and choose, then it might make more sense to check the Top 20 list and select the platform that is lowest on the vulnerability list. And if you can't do that, perhaps you can at least keep the vulnerabilities in mind and make sure you don't do anything to make the exploitations any easier.

If you're in the business of delivering a complete solution, as you may be, then you have more control. You can specify the entire package and make sure that every patch is installed before you deliver the final product. You'd think that such a practice would be standard in the industry, but it's not. Too many successful attacks take place on new servers that have

just been installed—servers that should have been completely up to date.

Still, the biggest single thing you can do is to avoid stupidity. Take, for example, a worm that surfaced back in May. In this case, the worm exploited database servers that didn't have passwords. Now, ask yourself, why would anyone in his right mind put a database server into production that wasn't password protected?

The answer is that the Web application was probably developed that way: The developers didn't use passwords internally because it would have complicated the development process. Unfortunately, security was never added later. Worse, the end users of the application were usually unaware that database passwords were needed, and even if they had known, it was unlikely that they could have implemented them. So, when somebody created a worm that could work only with unprotected database servers, it spread rapidly.

This is a case of obvious stupidity. Making data available without something to protect the database is asking for trouble. Developers who did this should have known better. However, now that this vulnerability has been found, checking the Top 20 will at least let everyone else know that it happens in time for that particular problem to be fixed, and maybe avoid some of that stupidity. ■

Wayne Rash is a technology journalist and consultant.



WAYNE RASH

LETTERS TO THE EDITOR

PREPARE YOUR PROGRAMMERS

Steven J. Vaughan-Nichols' column ["How Not to Use Java," June 1, page 31, or at www.sdtimes.com/cols/javawatch_055.htm] was quite interesting, although not surprising. To cite my own experience, I worked on an "insane" project like that. We were all ERP guys, and when we were sitting on benches, because of lack of projects, our company promised an integration project involving Java, MQSeries, XML, etc. Nobody had any clue about what was happening. Overnight, we became "experts" in these areas (that's what our company promised to the clients). We all obeyed our managers because we all want-

ed to save our work. Needless to mention, the project bombed and we lost our jobs after six months.

What I feel, after working on that project, was the client/customer was taken for a ride. This project needed some threaded programming to dispatch the messages in the queues and everybody was confused with the much-confused thread concept in Java.

I really felt pity for the client, but felt very sad working on this project. I might have gained some good experience for not doing something that is beyond the scope of my knowledge. But my sincere advice to the companies is, prepare your programmers to learn Java/

MQSeries/XML or anything new, and try to convince the client in borrowing some additional time.

Raghavendra Udupa

I've been in and out of programming projects, on the team, leading the team—and wondering what the team was doing. Boy, does this hit home. I've seen these same problems come up whether it's Java or COBOL. "Our programmers have all the O'Reilly books now, and they're picking it up quickly." Oh yeah, I've done that!

Thanks for the reminders of how not to handle the process.

Wes Schneider

CORRECTION

QNX Software Systems Ltd. in June launched Momentics, a new

software bundling and branding strategy. Momentics was misspelled in the June 1 issue.

CLARIFICATION

Computer Associates International Inc.'s accounting procedures are under review by the U.S. Securities and Exchange Commission, and not internally by CA. The June 1 Industry Watch column could have been interpreted to misrepresent which organization is doing the review.

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SD Times

Software Development Times
July 1, 2002 - Issue No. 057

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LITTLE GUYS INNOVATE IN JAVA APP SERVERS

In mid-May, Gartner Dataquest announced its final 2001 figures for Java app server sales. The numbers were interesting on several counts. Most conspicuous was the leap IBM made in market share to close the distance between its WebSphere Java application server and BEA Systems' WebLogic server.

This advance should be no big surprise to market watchers. IBM has aggressively tuned its product to go after market leadership, while BEA has apparently done the reverse: After rocketing to the top spot, the company appears to be stumbling. For the past year, BEA has lacked a clear strategy for broadening its product line beyond WebLogic. Moreover it cannot avail itself of the same sales opportunities IBM enjoys by riding the coattails of hardware and database sales.

The Java app server market is ripe for IBM to take over the lead from BEA, and even to put some air space between the two. I believe this will happen during the next 12 months. BEA's challenges and its response—which it plans to articulate later this month—will be the subject of an upcoming column.

Meanwhile, interesting things are happening at the less-expensive end of the market. In fact, other than the

IBM-BEA fight, which is more about bragging rights than technology, much of the interesting innovation is coming from the smaller players.

The company with the greatest relative gain in market share in Gartner's study was—surprise—Iona Technologies. Iona may be familiar to readers who remember the days of CORBA, where the company first made its stripes in a convincing fashion. Iona still sells a CORBA implementation, but its focus is now squarely on its Java app platform, Orbix E2A (End to Anywhere), whose distinguishing trait is integration of CORBA capabilities with Sun's Sun ONE app server (formerly branded as iPlanet). To this, Iona adds a significant suite of tools for Web services integration. The company's success lies in no small part in being able to integrate these different enterprise infrastructure technologies in an intelligent and usable way. It also maintains low price points for its entry-level products, making them appealing to developers at small and midsized firms.

Another up-and-coming app server vendor is Macromedia, which came to the Java party by obtaining JRun in its acquisition of Allaire. Unfortunately,

MIDDLEWARE WATCH



ANDREW BINSTOCK

Macromedia missed the Gartner cut: It is listed under "Other." This does a great disservice to great technology.

I discussed JRun 3 in this column ["Allaire's Practical J2EE," April 1, 2001, page 39] and was most impressed by its pricing, ease of use and reliability. JRun 4.0 continues the tradition. It's a complete implementation of J2EE 1.3 with support for all the current Web services specifications. The product's ease of use has been extended through features such as support for hot modification of components: Change a component, tell JRun, and it will restart the component without needing to restart the server. In addition, JRun uses watch directories. These allow you to move files such as JARs into the directory, and JRun will load and run them automatically. Effectively, this enables developers to do drag-and-drop deployment of applications—which has particular value during testing and debugging, where it saves considerable time. JRun also has unique support for Flash graphics, making it the server of choice for sites with extensive visual needs. In addition, here's a surprise: JRun runs on clusters right out of the box. At \$899 per CPU, this is a remarkable package.

JRun and Orbix E2A offer intelligent alternatives to the top end, expensive heavyweights from BEA and IBM.

Because of their quality implementations and the companies' clear sense of mission, I expect they will continue to grow as players in the Java app server market.

An even less-expensive option is JBoss, the primary open-source option in this market, now that Lutris has closed shop. JBoss is officially shipping, and it's already appearing on analysts' screens. Its success comes from developers who don't want to pony up for commercial products to test their code. This group includes consultants, small businesses and ISVs that sell turnkey solutions.

Whether JBoss can continue its ascent depends mostly on whether it establishes a successful model for commercial tech support. Java app servers often require serious help for configuration and deployment (and often thereafter). For managers to feel comfortable choosing JBoss, they will need to know help is available at the other end of the phone line. Linux itself went through the same evolution: It did not break into the corporate buying cycle until it had major support from companies like Red Hat and, later, IBM.

Between the innovations of the smaller players and the dogfight between IBM and BEA, it's clear buyers will enjoy improved products and prices during the next year. ■

Andrew Binstock is the principal analyst at Pacific Data Works LLC.

Easy Decision

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Meet the .NET Developer's Boss

Last week, she finished looking at the betas of Visual Studio .NET and other portions of Microsoft's .NET strategy. It's not perfect, but it'll do. She's been successful in reducing the number of deployment platforms in the server room to three: Windows, HP-UX, and AS/400. Although Linux and J2EE have a lot of potential, the CIO agrees that for now, it makes more sense for her team to continue following the Microsoft track to leverage huge investments in software, training, and code.

But that doesn't mean that she blindly follows Redmond's advice. Windows and COM+ are only two pieces of a very complex puzzle. Her department still has a lot of programmers who know Visual Basic 6, and she has no intention of retraining them to use C# or C++, or forcing them to abandon Delphi, JBuilder, or Rose. Somebody has to be the voice of reason and it can't be the individual programmers, who care more about cool interfaces and not enough about component reuse and cross-project standards. That's why she controls the checkbook.

What does she read? Not the Visual Basic or code-centric programming magazines. They're too hung up on the latest technical details; immersing herself in SOAP APIs won't help her manage a 40-person software team. Not Web sites. MSDN is great for explaining Microsoft's newest buzzword, but doesn't provide the balanced big-picture view she needs. She needs to see it all: all the vendors, all the languages, all the platforms. She needs to know the trends, the products, the alliances, the initiatives, the NEWS, and what it all means. That's why she reads SD Times.

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2002: A WEB SERVICES ODYSSEY

Arthur C. Clarke had the secrets to mankind's past and future orbiting Jupiter, and Microsoft isn't far behind. All right, another lead sentence stretched to the breaking point, but when rumor has Microsoft designing a new e-business server suite that is code-named Jupiter, you've got to work Mr. Clarke in there somehow.

Especially since Jupiter promises to be more than just another pricey back-office server addition to the .NET brood. This one is looking like the first battlefield of the upcoming Web services war—and the first snarling horde to come charging across that field is none other than IBM.

Microsoft's Jupiter arsenal, however, is quite impressive, comprising a large software bundle. The core of that bundle will be the BizTalk and SharePoint Portal servers, but surrounding these will be the new Commerce Server, Content Management Server and Host Integration Server, as well as close integration with Redmond's new Great Plains business application suite. Tying all this together, however, will be a series of development and customization tools, including the new .NET Web services extensions, a variety of BizTalk templates, and a new set of visual tools designed to allow programmers to assemble .NET Web services using

components from each of Jupiter's bundled servers.

Though Redmond is remaining closed-mouthed at the time of this writing with nary a press release in sight, its marketing position for BizTalk and Commerce Server 2000 alone should indicate that Jupiter will be positioned as far more than just a many-bladed Web services development tool. Microsoft already has declared that its support of emerging standards such as SOAP and UDDI make .NET a perfect tool for business-process engineering projects, so it's a safe bet that Jupiter will be positioned along these lines as well.

Seeing that Content Management Server and Commerce Server 2000 already are being integrated, some might ask what the real motivation behind Jupiter might be. That brings us right back to the impending Web services war with IBM. While Redmond is tugging the planet Jupiter together, the Big Blue marble is bolstering its own stellar sphere in the form of WebSphere Application Server version 5.

While Microsoft is still pulling Jupiter together, though, IBM has already announced WebSphere 5's

WINDOWS WATCH



OLIVER RIST

arrival in Q3, and it's aimed at delivering not only Web services functionality but also business integration via Web services. The big difference, of course, is its reliance on J2EE 1.4. This move will force Web services developers to choose between .NET on the one side and J2EE 1.4, the J2EE Connector Architecture and similar Java-based Web services tools (including support for UDDI) on the other.

IBM is sweetening this pot with additional WebSphere features, including MQ Event Broker and WebSphere Business Integration (WBI), a new technology that IBM recently purchased from CrossWorlds Software. WBI is designed to automate business process integration across a heterogeneous application base. IBM claims that this will enable WebSphere to integrate disparate business applications into a united user experience with minimal customization to the existing applications. Nice thought.

And IBM is not alone. You can expect similar offerings from BEA, Borland, HP BlueStone and probably Oracle as well. Support for J2EE will be the constant among these vendors, while Microsoft will be pushing .NET. Areas of commonality will be SOAP, WSDL and UDDI, so where Microsoft will want to differentiate itself is probably in price. That will be difficult,

however, considering the number of .NET servers Redmond intends to bundle with Jupiter.

In addition, tackling the likes of IBM and BEA means yet another concerted effort by Microsoft to win the heart of the enterprise data center. Frankly, while price is certainly an issue there, Redmond has other worries. Reliability and security are two that spring immediately to mind. Complexity is the one that creeps up on you from behind.

Microsoft has always led in ease of use and a low learning curve. Need to bang something out in a hurry? Microsoft has always been a solid choice. But looking at a bundle like Jupiter, you can't help but heave a sigh at the impending manual meal: a new and deep server operating-system architecture, a new development framework, several heavy-duty back-office server packages and a series of new top-layer development tools. Faced with a competitive development schedule, will enterprise developers overlook this overhead in order to (potentially) save some bucks, or will they stick with what many of them already know, namely J2EE even if it does wind up costing more?

You got me, but it's going to be fun to watch. ■

Oliver Rist is a technology journalist and vice president of technology at AIC Inc.

.NET ADVANCING

◀ continued from page 4

By comparison, 48.8 percent of respondents indicated that they are currently developing apps for either Java 2 Standard Edition or Java 2 Enterprise Edition, and 51.8 percent said that they expect to be building new apps for J2SE or J2EE within the next year. That's what you would call a statistical tie.

Along with the rise of the Microsoft and Sun development platforms is a corresponding decrease in most other target platforms. The survey showed that 48.2 percent of respondents are targeting Unix (including Solaris and AIX) for current apps, and only 37.9 percent will be targeting Unix for new apps built over the next year.

The development of mainframe applications will drop from 19.7 percent to 11.7 percent during the same period, while minicomputer application development will drop from 14.4 percent to 7.9 percent. The only other platform to show an increase is Linux; 33.2 percent of development managers said they are currently targeting Linux, and 38.5 percent will be targeting it in the next year.

Many in the industry have wondered whether the rise of XML or Web services will encourage heterogeneity or homogeneity in target development

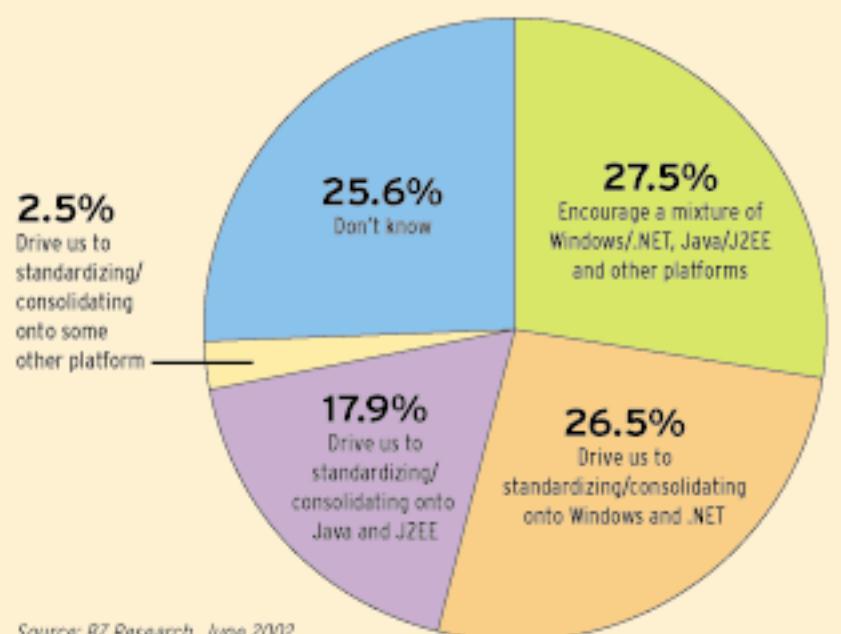
platforms. The results are split, with fewer than half believing that Web services will drive them toward a specific platform standard—26.5 citing Windows/.NET, and 17.9 percent opting for Java/J2EE. The largest share, 27.5 percent, believes that these technologies will actually encourage a mixture of Windows/.NET, Java/J2EE and other platforms in their organization, and the final quarter was undecided.

When managers were asked about their team's programming languages, the survey revealed an understandable migration from Microsoft's older languages to its new .NET tools. Currently, the most popular language is Visual Basic, being used in 69.7 percent of the surveyed companies today; this will drop to 39.4 percent over the next year, while Visual Basic .NET will pick up most of the drop-off, growing from 21.8 percent to 43.4 percent.

Similarly, the use of Visual C++ will drop from 45.5 percent to 26.8 percent, while Visual C++.NET will grow from its meager 8.4 percent to a healthier 23.1 percent. Microsoft's new language, Visual C# .NET, will nearly double in adoption from today's 18.8 percent of organizations to 36.7 percent, said the survey's respondents.

Interestingly, the strong showing of Visual C# .NET divides the Microsoft camp and propels Java into first place as the most popular language over the

How will XML and Web services affect your company's choice of development and deployment platforms?



Source: BZ Research, June 2002

coming year, even though its adoption is projected to decline from 56.4 percent of companies to 52.6 percent.

Other than Java, all non-Microsoft languages fared poorly. The survey's respondents indicated that while Perl is used in 28 percent of companies for current projects, only 19.8 percent said that it would be used for new projects. COBOL declined by nearly half, from

19.1 percent to 9.7 percent. Pascal usage, which is currently dominated by Borland's Delphi and Kylix products, will decline from 11.5 percent to 8.2 percent.

The bottom line: Despite the best efforts of Microsoft and Sun, the platform battles remain deadlocked, with both .NET and Java expected to perform strongly over the next year. ■

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WHAT SUN ONE BUNDLING MEANS FOR YOU

A major operating system and software company recently announced it would now be bundling its flagship application server with its operating system. Now, is that company 1) Microsoft, 2) Novell or 3) Sun?

The answer, of course, is Sun. Mind you, it calls Solaris 9 an "operating environment and Web services platform" instead of an operating system, but still there's something a little funny about this move. For years—it seems like since the young Scott McNealy first strung a couple of tin cans and a string together and thought, hmm, network—that Sun has been whacking, suing and verbally abusing Microsoft for bundling tools, such as a Web app server and Web services platform, into the operating system.

Now it's Sun's turn to include non-operating system services into the operating system. And, honestly, irony and all, I think it's a long overdue move. While the legal battles continue, the practical upshot of Microsoft's bundling a Web browser, disk compression, remote desktop services, an app server and so on is that it was a successful strategy. Netscape hangs on by a thread, only grizzled tech vets remember Stacker, and Citrix MetaFrame is fighting hard to survive. With .NET, J2EE is the next target.

If you can't beat 'em, join 'em. So,

that's what Sun has done. In Solaris 9, you'll get not only Sun's J2EE 1.3 application server, Sun Open Network Environment (ONE) Application Server 7 Platform Edition, but also the Sun ONE Directory Server; and full XML support with Java API for XML Parsing (JAXP), Java API for XML Messaging (JAXM), Java API for XML Registries (JAXR) and SOAP 2.2.

What you can see, though, from the product lineup alone is that Sun is betting big that Web services are the wave of the future. I'm not as sure as Sun is. I think bandwidth restrictions (XML protocol-borne messages aren't small) will limit Web services to high-speed LANs and intranets.

What I don't think Sun is trying to do, though, is pull a Microsoft and try to grab control of a market, in this case J2EE, by undercutting its rivals with a "free" package.

Of course, Sun won't mind more business coming its way, but the forthcoming bundled Sun ONE Platform Edition (PE), from what I'm told, will be a little too lightweight for big-time business apps.

I expect that most of us will find PE more useful as a single-box modeling environment than as a production environment. For serious work, you'll still need to turn to ONE Enterprise Edition

or Enterprise Pro, or BEA's WebLogic or IBM's WebSphere.

And, that's fine, said Bill Moffitt, product line manager for Sun's Solaris. He told me, "You can use the Sun ONE stack or use other products: Apache, Tomcat, BEA or what have you. Everything that adheres to open standards can work." He continued, "I've talked personally with BEA and IBM. They're accepting of this, and they're not upset about it. Their view is that it widens the market because it makes people more aware of J2EE and then gives them a chance to compete on an open playing field."

The bundling of the app server does make the J2EE market more competitive with Microsoft; once the next version of Windows ships, anyone who buys a modern Microsoft server operating system is going to be getting .NET app servers whether they want them or not. If left unopposed, Microsoft would gain market initiative, if not market share, for all app servers. With this bundling move, Sun and the other J2EE vendors have a fighting chance.

Another difference between the Solaris 9 approach and the .NET server approach, Moffitt said, is that with J2EE, "you don't have to use it at all; it doesn't even need to stay installed. This is an open, integrated stack. It does come with the operating system and works well with

it, but it also works with all the appropriate open standards throughout the stack. This means it's very easy to move one piece out and pop another one in. If you don't like our Web server, you just remove it and pop in Apache or Zeus. And this is all done using our standard package installation and remover. That's the big difference between us and Microsoft. We're building the best, and they're trapping people."

I like this idea. By supporting open standards and APIs, Sun should not only help gain customers for its own J2EE services, but indeed, widen the entire J2EE and Web services market.

Of course, it can still go wrong. While BEA and IBM are not disapproving of the move, Oracle has remained mum. I wonder, as Red Hat and Oracle get ready to announce Unbreakable Linux, if Oracle is considering getting into the operating system—excuse me, operating environment—business with Red Hat Linux as the core and its own DBMS and middleware for the app server.

Regardless of that, I think Sun's move will open many more business doors to J2EE shops. After all, this policy worked for Microsoft and its partners—why can't it work for Java? ■

JAVA WATCH
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WEBGAIN? TOTAL LOSS

A year ago, WebGain CEO Joe Menard sat in the editorial offices of SD Times and spelled out his vision for the company and its Java IDE. At the time, June 2001, the company was 16 months old and was showing what Menard called "continuous improvement." He even hinted about a public stock offering, though Menard repeatedly said he couldn't reveal more due to the quiet period mandated by pre-IPO rules.

Now, only a year later, not only has the fledgling company not gone public, it appears to have shuttered its doors. Menard and other executives do not return inquiries. The voice-messaging system at WebGain headquarters has been shut off. A former employee said the staff showed up for work one Monday in early June and was informed their services no longer would be required.

Calls to Warburg, Pincus Venture Partners, which along with one-time parent company BEA Systems Inc. funded WebGain to the tune of \$100 million in February 2000, went unanswered. WebGain no longer is listed on the Warburg Pincus Web site among the companies in which the venture firm has an equity stake.

What happened to the company is sheer speculation, fueled by reports that the company was planning to sell the TopLink object-to-relational database mapping tool to Oracle, where former WebGain CTO Ted Farrell had moved months before WebGain's apparent demise. That sale was said to be completed June 18, though Oracle had yet to confirm the transaction at press time. The IDE certainly was well regarded in the industry, garnering magazine awards as the leading Java development envi-

ronment. Since WebGain was spun off from BEA, the tools were closely tied to the market-leading Java application server, so there should not have been any lack of potential customers to pitch. In fact, at one point in 2001, WebGain claimed to own more than 20 percent of the Java IDE market.

What happens to its customers probably won't be pretty. WebGain Studio sold for almost \$5,000 per seat, and that's before any investments in training and customization.

So development managers who shelled out large sums of corporate money find themselves working with an unsupported tool set that's almost sure to become obsolete, if parts of it aren't already. And what of projects already in the works? Will those applications be able to take advantage of the latest Java technologies when they're completed?

And, aside from TopLink, what of



the other tools in the kit that WebGain basically bought up and now effectively have been taken out of the market? What of VisualCafé, widely acknowledged as an excellent Java development tool that was acquired from Symantec Corp.? What will become of the StructureBuilder modeling tool acquired from Tendril Software Inc.? Fewer tools mean fewer choices and more vendor lock-in, anathema to the Java development world. But maybe that was part of WebGain's problem; it seemed unable to convince users that it was, in fact, one integrated product from one vendor and not merely a bunch of products cobbled together through acquisitions and sold under the guise of an IDE.

Consider BEA. The minority shareholder in WebGain loses the IDE with which it was most closely associated, but it seemed to be moving in a different direction anyway.

While its closest competitor, IBM, sells its WebSphere application server with a host of development tools and a framework in which to create apps, BEA now also offers its new Workshop framework replete with tools. BEA also has close ties to TogetherSoft and its development environment, and since its WebLogic is the leading app server, other tools companies such as Borland support it with tight integrations.

Perhaps WebGain was superfluous. Perhaps it failed to gain enough market share to sustain the kind of growth Warburg Pincus had come to expect from its IT investments. Perhaps developers preferred the tools they already owned and were familiar with.

In any event, it appears WebGain and its customers have become one of the more notable casualties of the IT slowdown. ■

David Rubinstein is executive editor of SD Times.

BUSINESS BRIEFS

TIBCO Software Inc. announced preliminary second-quarter revenues of between \$63 million and \$65 million, but will post a loss of between 18 cents and 23 cents per share, in accordance with generally accepted accounting principles for the period ending May 31. The company's pro forma loss, excluding certain charges, should be about 1 cent per share. Revenues and earnings are down from the first fiscal quarter ended March 1, when the company reported revenues of \$74 million and earnings of 4 cents per share. The company in June announced the resignation of Frank Bergandi, its executive vice president of worldwide sales and field operations. No replacement had been named as of press time . . . **Fujitsu Corp.** will develop a .NET version of its Interstage application server as part of an expanded alliance with **Microsoft Corp.** Interstage, according to Fujitsu, is the largest-selling platform in Japan. Under the agreement, Microsoft will support Fujitsu's commitment to .NET . . . **Interactive Software Engineering Inc.** has changed its name to **Eiffel Software Inc.** to reflect its emphasis on the Eiffel programming language, developed by company founder Bertrand Meyer. Eiffel was developed in 1985, according to the company, which believes enterprise applications today have outgrown the limits of other programming languages. ESI sells the EiffelStudio development environment to run on Linux, Unix, Windows and VMS, and was one of the first non-Microsoft language vendors to support .NET . . . **Oracle Corp.** announced preliminary earnings of \$760 million, or 14 cents per share, for the fourth quarter based on \$2.77 billion in revenues, which were down 16 percent from last year's quarter but exceeded Wall Street estimates. ■



CALENDAR OF EVENTS

Real-Time & Embedded Distributed Object Computing Workshop July 15-18

Arlington, Va.
OBJECT MANAGEMENT GROUP
www.omg.org/news/meetings/realtimew2002

O'Reilly Open Source Convention July 22-26

San Diego

O'REILLY & ASSOCIATES
<http://conferences.oreillynet.com/os2002>

LinuxWorld Conference & Expo Aug. 12-15

San Francisco
IDG WORLD EXPO
www.linuxworldexpo.com

Rational User Conference Aug. 18-22

Lake Buena Vista, Fla.
RATIONAL SOFTWARE CORP.
www.rational.com/ruc

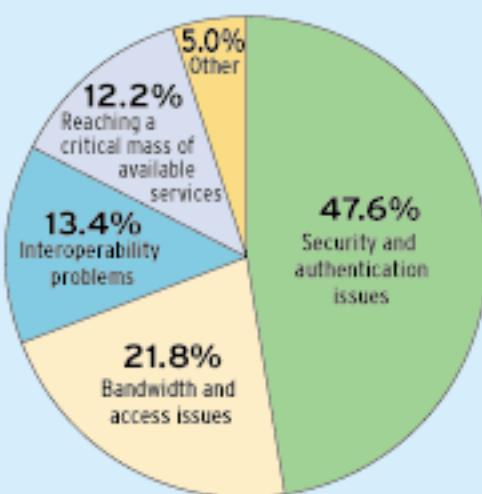
Quality Week Sept. 3-6

San Francisco
SOFTWARE RESEARCH INC.
www.soft.com/QualWeek/QW2002

VSLive Sept. 14-19

Orlando, Fla.
FAWCETTE TECHNICAL PUBLICATIONS
www.vslive.com/2002/or

What Do Enterprise Development Managers Think Will Be the Biggest Obstacle To Web Services Implementation?



EVANS DATA WATCH

Security is foremost on the minds of development managers. Since Web services rely heavily on the Internet and dealing with companies or partners outside the protection of the firewall, enterprise development managers are greatly concerned with security and authentication issues. Close to half of respondents to Evans Data Corp.'s Enterprise Development Management Issues 2002 survey say this concern is a potential obstacle to the Web services model—about the same as in the last survey six months earlier.

Nearly a quarter are concerned about the robustness of the network to deliver Web services applications and data. Again, this is similar to the findings from six months ago.

Interoperability has diminished somewhat as a concern, however. Just over 13 percent of enterprise developers are concerned about potential interoperability of applications interacting through a Web services architecture—down from 18 percent in the previous survey.

While these concerns appear to be on the minds of developers working in all vendor environments, they seem to be especially pronounced among developers working with the two biggest Web services proponents: Microsoft and IBM.

Source: Enterprise Development Management Issues, Vol. 1, 2002 ©Evans Data Corp.
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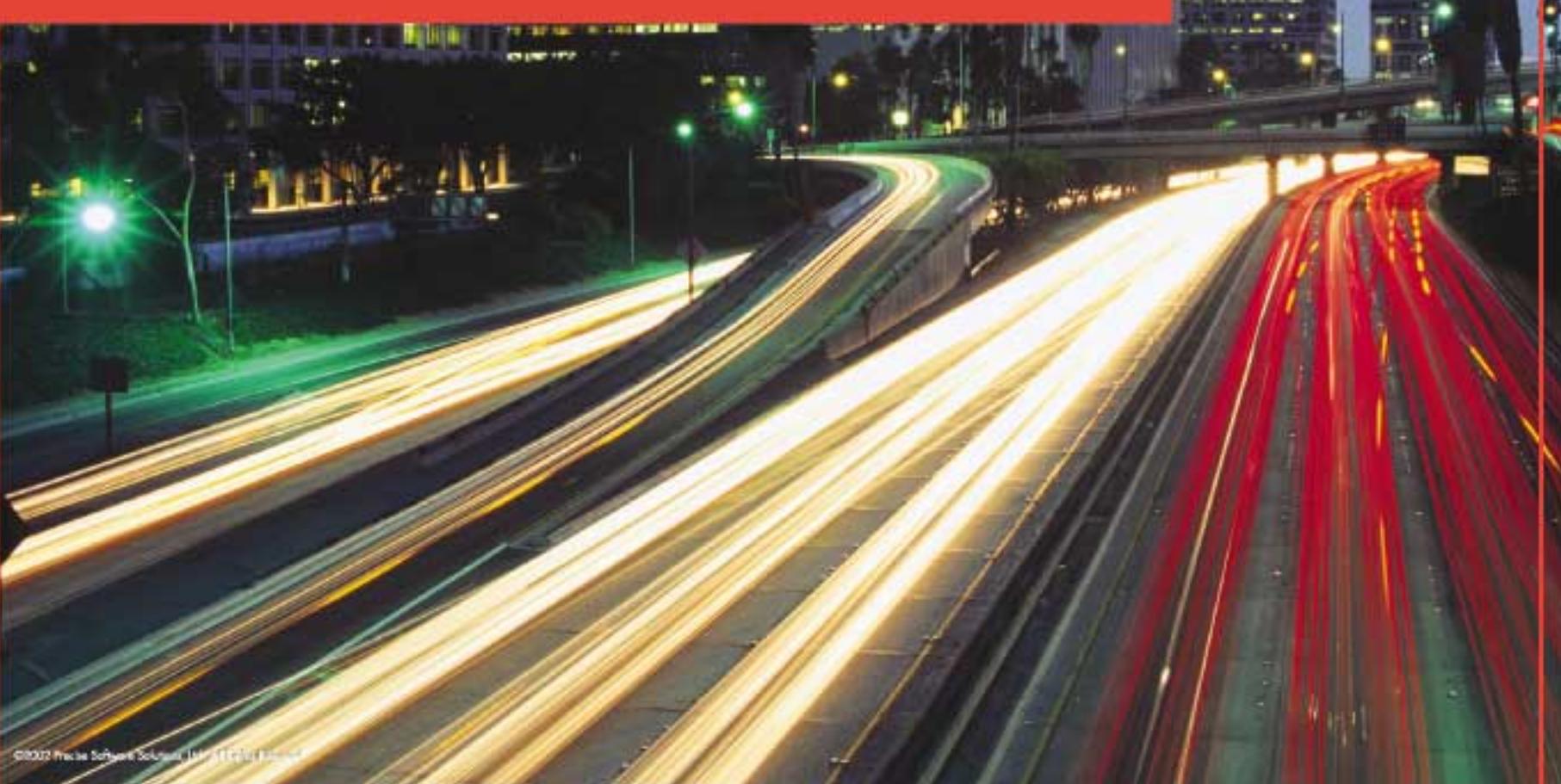
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